Champion®

Installation/Operation with Service Replacement Parts

Beginning with Serial No. R3448 and above

Single Tank
Model 44

Single Tank w/Prewash
Model 66 PW

Two Tank w/Prewash
Model 64

E-series Rack Conveyor Dishwasher Model Machines

Single Tank 44 66 PW 70 FFPW 80 HDPW 44 WS 66 WSPW 70 WSFFPW 80 WSHDPW	Dual Tank Rack 64 86 PW 90 PPPW 100 HDPW 120 HDPW
Single Dual-Rinse 44 DR 66 DRPW 70 DRFFPW 80 DRHDPW 44 DRWS 66 DRWSPW 70 DRWSFFPW 80 DRWSHDPW 54 DR 76 DRPW 80 DRFFPW 90 DRHDPW	Chemical Sanitizing 44 LT 66 LTPW 70 LTHDW 80 LTHDPW

Dishwasher serial no.

www.championindustries.com

Issue Date: 11.16.10

***Manual P/N** 114315 rev. G*

For machines beginning with S/N R3448 and above

3765 Champion Boulevard
Winston-Salem, NC 27105
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Toll-free: 800.858.4477

2674 N. Service Road, Jordan Station
Ontario, Canada L0R 1S0
905/562-4195 Fax: 905/562-4618
Toll-free: 800.263.5798

Printed in USA

For future reference, record your dishwasher information in the box below.

Model Number_____ Serial Number_____

Voltage_____Hertz_____ Phase_____

Champion Service Agent _____ Tel:_____

Champion Parts Distributor _____ Tel:_____

National Service Department

Champion MOYER DIEBEL

In Canada:
Toll-free: 800/ 263-5798
Tel: 905/ 562-4195
Fax: 905/ 562-4618
email: service@moyerdiebellimited.com

Champion®

In the USA:
Toll-free: 800/ 858-4477
Tel: 336/ 661-1556
Fax: 336/ 661-1660
email: service@championindustries.com

ATTENTION:

The dishwasher model number, serial number, voltage, hertz and phase are needed to identify your machine and to answer questions.
Please have this information on-hand if you call for service assistance.

For all models:

The data plate mounts to one side of the top-mounted control cabinet.

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PO BOX 301
JORDAN STATION ON L0R 1S0

ATTENTION:

Complete the back of the WARRANTY CARD above or below, then cut along the dashed lines and mail immediately to make sure that your machine warranty is validated.

USE CANADIAN WARRANTY CARD IN CANADA AND USA WARRANTY CARD IN THE UNITED STATES.

PLACE
STAMP
HERE

CHAMPION INDUSTRIES INC
3765 CHAMPION BLVD.
WINSTON-SALEM, NC 27105

WARRANTY REGISTRATION CARD

Model	Serial #

Date of Installation: ___/___ /____

Company Name: _____

Address: _____ _____ _____
(Street) State or Province Zip Code

Telephone #: ( ) _____ --- _____

Contact: _____

Installation Company: _____

Address: _____

Telephone #: _____

Contact: _____

This Card Must Be Returned to Validate Machine Warranty:

IMPORTANT IMPORTANT

WARRANTY REGISTRATION CARD

Model	Serial #

Date of Installation: ___/___ /____

Company Name: _____

Address: _____ _____ _____
(Street) State or Province Zip Code

Telephone #: ( ) _____ --- _____

Contact: _____

Installation Company: _____

Address: _____

Telephone #: _____

Contact: _____

This Card Must Be Returned to Validate Machine Warranty:

IMPORTANT IMPORTANT

Revision History

A revision might be a part number change, new instructions, or information that was not available at print time. We reserve the right to make changes to this manual without notice and without incurring any liability by making the changes. Dishwasher owners may request a revised manual, at no charge, by calling (800.858.4477) in the USA or (800.263.5798) in Canada.

Revision Date	Revised Pages	Serial Number Effectivity	Description
9.01.04	All	RE3448	Released First Edition
9.01.04	20	RE3448	P/N 328473 replaced by 328977
9.01.04	20,23,25	RE3448	Added new door catches
9.01.04	23	RE3448	P/N 327891 replaced with 328974
12.16.04	43, 75,77	RE3448	Added 575 Volt Elements
2/16/05	91	RE3448	Added revised schematics
3/13/08	21,22	RE08024965	Added baffle to prevent drafts
9/27/06	32-35	RE4320	Added rack rear guide to the track
7/17/08	80	RE08065126	Added timer to eliminate blower chatter
3/14/08	N/A	RE0705549	Added Solid State Controls for special orders
8/18/09	98-99	J08102541	Added Digital Controls displays to cabinet and digital display troubleshooting guide
6/12//09	N/A	RE09045446	First Rack Model with digital display
10/13/09	All	J08102541	Released Second Edition
1/22/10	92-97	J08102541	Added 575V/3PH Part Nos.
1/22/10	110-113	J08102541	Added 24" and 30" Sideloaders
3.17.10	80-83	J08102541	Added Fill Piping and CWT Piping
8.2.10	23	J08102541	Added 120 to set-point instructions
8.2.10	84	J08102541	Added Drain Basket Assy. P/N 107342
8.2.10	89	J08102541	Changed Item 2 P/N to 113984
8.2.10	106-107	J08102541	Revised Illustration and Parts List
8.26.10	107	J08102541	Corrected Item 36 P/N for 0507315 to 601707
11.16.10	55	J08102541	Corrected Item Numbers in Illustration

LIMITED WARRANTY

Champion Industries Inc. (herein referred to as Champion), 3765 Champion Blvd., Winston-Salem, North Carolina 27105, and P.O. Box 301, 2674 N. Service Road, Jordan Station, Canada, L0R 1S0, warrants machines, and parts, as set out below.

Warranty of Machines: Champion warrants all new machines of its manufacture bearing the name "Champion" and installed within the United States and Canada to be free from defects in material and workman ship for a period of one (1) year after the date of installation or fifteen (15) months after the date of shipment by Champion, whichever occurs first. [See below for special provisions relating to glasswashers.] The warranty registration card must be returned to Champion within ten (10) days after installation. If warranty card is not returned to Champion within such period, the warranty will expire after one year from the date of shipment.

Champion will not assume any responsibility for extra costs for installation in any area where there are jurisdictional problems with local trades or unions.

If a defect in workmanship or material is found to exist within the warranty period, Champion, at its election, will either repair or replace the defective machine or accept return of the machine for full credit; provided; however, as to glasswashers, Champion's obligation with respect to labor associated with any repairs shall end (a) 120 days after shipment, or (b) 90 days after installation, whichever occurs first. In the event that Champion elects to repair, the labor and work to be performed in connection with the warranty shall be done during regular working hours by a Champion authorized service technician. Defective parts become the property of Champion. Use of replacement parts not authorized by Champion will relieve Champion of all further liability in connection with its warranty. In no event will Champion's warranty obligation exceed Champion's charge for the machine. The following are not covered by Champion's warranty:

a. Lighting of gas pilots or burners.
b. Cleaning of gas lines.
c. Replacement of fuses or resetting of overload breakers.
d. Adjustment of thermostats.
e. Adjustment of clutches.
f. Opening or closing of utility supply valves or switching of electrical supply current.
g. Cleaning of valves, strainers, screens, nozzles, or spray pipes.
h. Performance of regular maintenance and cleaning as outlined in operator's guide.
i. Damages resulting from water conditions, accidents, alterations, improper use, abuse, tampering, improper installation, or failure to follow maintenance and operation procedures.
j. Wear on Pulper cutter blocks, pulse vanes, and auger brush.

Examples of the defects not covered by warranty include, but are not limited to: (1) Damage to the exterior or interior finish as a result of the above, (2) Use with utility service other than that designated on the rating plate, (3) Improper connection to utility service, (4) Inadequate or excessive water pressure, (5) Corrosion from chemicals dispensed in excess of recommended concentrations, (6) Failure of electrical components due to connection of chemical dispensing equipment installed by others, (7) Leaks or damage resulting from such leaks caused by the installer, including those at machine table connections or by connection of chemical dispensing equipment installed by others, (8) Failure to comply with local building codes, (9) Damage caused by labor dispute.

Warranty of Parts: Champion warrants all new machine parts produced or authorized by Champion to be free from defects in material and workmanship for a period of 90 days from date of invoice. If any defect in material and workmanship is found to exist within the warranty period Champion will replace the defective part without charge.

DISCLAIMER OF WARRANTIES AND LIMITATIONS OF LIABILITY. CHAMPION'S WARRANTY IS ONLY TO THE EXTENT REFLECTED ABOVE. CHAMPION MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED, TO ANY WARRANTY OF MERCHANTABILITY, OR FITNESS OF PURPOSE. CHAMPION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE REMEDIES SET OUT ABOVE ARE THE EXCLUSIVE REMEDIES FOR ANY DEFECTS FOUND TO EXIST IN CHAMPION DISHWASHING MACHINES AND CHAMPION PARTS, AND ALL OTHER REMEDIES ARE EXCLUDED, INCLUDING ANY LIABILITY FOR INCIDENTALS OR CONSEQUENTIAL DAMAGES.

Champion does not authorize any other person, including persons who deal in Champion dishwashing machines to change this warranty or create any other obligation in connection with Champion Dishwashing Machines.

E-series Rack Conveyor Dishwashers

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Model Descriptions

Electric high temperature single tank and multiple tank rack conveyor dishwashers with built-in electric boosters in 40°F/22°C rise or optional 70°F/39°C rise.

Steam high temperature single tank and multiple tank rack conveyor dishwasher with built-in steam booster in 40°F/22°C rise or an optional 70°F/39°C rise booster.

Hot water coil dishwashers utilizing recirculating hot water through a wash tank heater coil to heat the wash water.

Electric low temperature chemical sanitizing single tank and multiple tank rack conveyor dishwasher.

Dual Rinse machines utilizing an auxiliary rinse to save energy and improve washability.

The installation, and initial start-up of your dishwasher must be performed by qualified electricians, plumbers, and authorized service technicians trained in commercial dishwashers.

Defects and repairs caused by unauthorized installers will not be covered by the dishwasher warranty.

Model Details

Champion single tank and two tank rack conveyor dishwashers are fully automatic. Standard equipment includes 1HP prewash, 2HP wash and 2HP power rinse pumps. The conveyor drive is a 1/6 HP motor. All models are available in right-to-left (R-L) or left-to-right (L-R) direction.

Model Numbers

Single Tank - Basic	44, 54, 44 WS, 44 LT
Single Tank with 22" Prewash	66 PW, 76 PW, 66 WS, 66 LT PW
Single Tank with 36" Prewash	80 HDPW, 90 HDPW, 80WS HDPW
Single Tank with 26" Front Feed Prewash	70 FFPW,80 FFPW, 70 WS FFPW

- The 44 DR and 54 DR basic models are high temperature 180°F/80°C hot final rinse water sanitizing dishwashers. Prewash options are available in 22", 36", and 26" front feed. Built-in stainless steel electric booster heaters in 40°F/22°C and 70°F/39°C rise are available and steam booster heaters in 40°F/22°C and 70°F/39°C rise. Dual-Rinse (DR) models feature a recirculating rinse that conserves energy.
- The 44 WS and 44 DRWS models are WaterSaver high temperature 180°F/80°C hot final rinse water sanitizing dishwashers. Prewash options are available in 22", 36", and 26" front feed. Built-in stainless steel electric booster heaters in 40°F/22°C and 70°F/39°C rise are available and steam booster heaters in 40°F/22°C and 70°F/39°C rise. Dual-Rinse (DR) models feature a recirculating rinse that conserves energy.
- The 44 LT and 66 LT models are low temperature 140°F/60°C sodium hypochlorite (chlorine bleach) sanitizing final rinse to maintain a minimum concentration of 50 PPM on the wares. The concentration of sanitizer must be tested at regular intervals using chlorine test papers.

Two Tank - Basic	64, 72, 84
Two Tank with 22" Prewash	86 PW, 94 PW, 106 PW
Two Tank with 36" Prewash	100 HDPW, 108 HDPW, 120 HDPW
Two Tank with 26" Front Feed Prewash	90 FFPW, 98 FFPW, 110 FFPW

- The 64, and 84 basic models are high temperature 180°F/80°C hot water final rinse sanitizing models. Prewash options are available in 22", 36", and 26" front feed. Built-in stainless steel electric booster heaters in 40°F/22°C and 70°F/39°C rise are available and steam booster heaters in 40°F/22°C and 70°F/39°C rise.

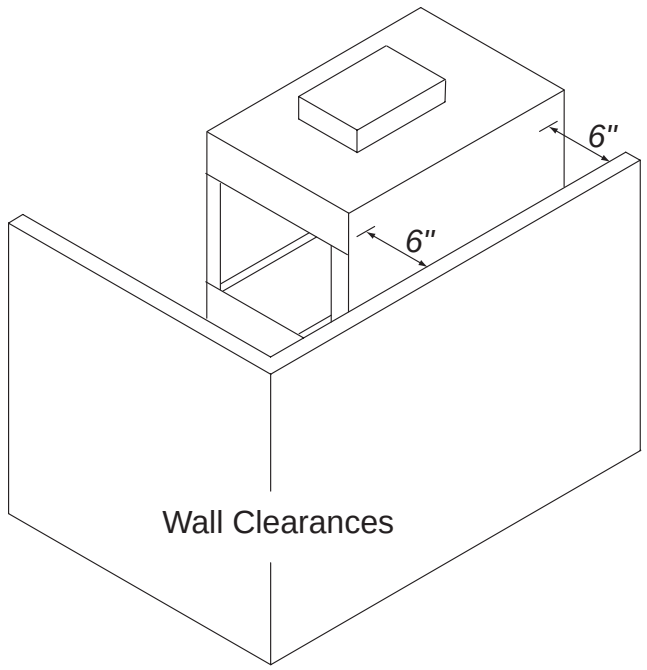
- All rack conveyor dishwasher models are covered by a 1-year parts and labor limited warranty.

Receiving

!!ATTENTION!!

Use caution when moving or lifting the dishwasher to prevent damaging the dishwasher or the installation site. Check doorway and passageway clearance before moving the dishwasher. Remove dishwasher front panels and check under the machine base for obstructions before moving.

1. Inspect the dishwasher for shipping damage
2. Check the dishwasher interior for curtains, panels and other supplies.
3. Lift the dishwasher off the shipping pallet and move the machine near its permanent location.
4. Leave a minimum of 6" between walls and the rear of the dishwasher.
5. Level the dishwasher side-to-side and front-to-back using a bubble level.
   The dishwasher legs are adjusted by screwing them in or out.
6. Do not remove tags attached to the utility connections.
7. Remove the protective film from the dishwasher exterior.
8. Remove any foreign material from the dishwasher interior.



Wall Clearances

Utilities

Hot Water Connections

NOTE:
Only qualified personnel should make dishwasher plumbing connections.
Connections must meet local plumbing and sanitary codes.
Improper installation is not covered be the dishwasher warranty.

Hot Water Requirements:

1. Connect a 3/4" NPT hot water supply line to the line strainer located at the top rear of the dishwasher.
2. For a dishwasher without a booster heater, the hot water connection must supply a minimum of 180°F/82°C measured at the dishwasher.
3. For a 40°F/22°C rise booster heater, the hot water connection must supply a minimum of 140°F/60°C measured at the dishwasher.
4. For a 70°F/39°C rise booster heater, the hot water connection must supply a minimum of 110°F/43°C measured at the dishwasher.
5. For a single wash tank hot water coil heated dishwasher, the hot water connection must supply a minimum of 185°F/85°C measured at the dishwasher.
6. For a two-tank hot water coil heated dishwasher, the hot water connection must supply a minimum of 195°F/91°C measured at the dishwasher.
7. For a low temperature chemical sanitizing dishwasher the hot water connection must supply a minimum of 140°F/60°C measured at the dishwasher.
8. Install a pressure regulating valve (PRV) before the dishwasher supply connection to maintain a flowing pressure of 20-25 PSI/137.8-172.4 kPa.
9. Install a service shut-off valve in the supply line, as close to the dishwasher as possible. The size of the valve must be the same size or larger as the supply line.

Cold Water Connections

Cold Water Requirements:

1. Connect a 1/2" NPT cold water supply line for a dishwasher equipped with a prewash cold water tempering option. Connection is located at the top of rear of the dishwasher load end.
2. Connect a 1/2" NPT cold water supply line for dishwashers required to have a drain water temperature tempering option. Request a P/N 452891 for a drain tempering water kit.

Drain Connections

1. The 1-1/2" drain line was removed and packed inside the dishwasher prior to shipping. Install the drain line once the dishwasher has been placed in its final location.
2. Dual rinse (DR) models have a PVC drain line assembly packed inside the dishwasher also. Remove this assembly and install it at the unload end of the dishwasher. The drain connection is made to the main drain line with a hose-type connector.
3. Connect the 1-1/2" NPT drain line to above a drain sink or to a 1-1/2" or larger drain line connection.
4. Observe all local plumbing and sanitary codes when installing.

Steam Supply and Condensate Connections

1. The size of the steam supply line must be a 2" NPT line.
2. Check the steam pressure requirements prior to connecting the steam supply lines. Standard high steam supply required is 15-30 PSI/103-201 kPa.
3. Low steam supply pressure is 7-14 PSI/48.2-96.5 kPa
4. Connect a steam supply line the same size or larger to the dishwasher at the steam supply strainer located at the unload end of the dishwasher.
5. Condensate lines must be gravity drain with no back pressure. A condensate lift pump must be installed if the condensate flow is above the finished floor.

Ventilation Connections

1. DO NOT VENT THE DISHWASHER INTO WALLS, CEILINGS OR ENCLOSED PLACES.
2. Vent stacks with adjustable dampers are supplied with the dishwasher to connect house vent.
3. Connect stainless steel water-tight duct inside the 4" x 16"/ 106mm x 407mm vent stacks supplied with the dishwasher.
4. A minimum of 6 air changes per hour of kitchen is recommended

Ventilation Guidelines:

Dishwasher without a prewash tank option:
Load end- 200 CFM @ 1/4" SP/ 95 Liters/second
Unload end- 400 CFM @ 1/4" SP/ 189 Liters/second

Dishwasher with a Prewash tank option:
Load end- 150 CFM @ 1/4" SP/ 95 Liters/second
Unload end- 400 CFM @ 1/4" SP/ 189 Liters/second

Dishwashers with more than two tanks:
Load end- 200 CFM @ 1/4" SP/ 95 Liters/second
Unload end- 400 CFM @ 1/4" SP/ 189 Liters/second

Electrical Connections

WARNING:
Electrocution or serious injury may result when working on an energized circuit.

Disconnect power at the main breaker or service disconnect switch before working on the circuit.

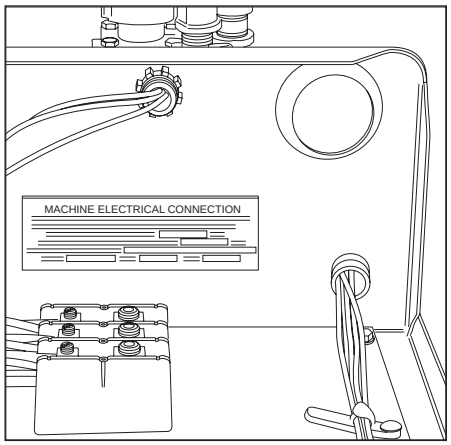
Lock-out and tag the breaker to indicate that work is being performed on the circuit.

ATTENTION

A qualified electrician must connect the main incoming power to the dishwasher in accordance with all local codes and regulations or in the absence of local codes in accordance with the National Electrical Code.

!!ATTENTION!!
Electrical and grounding connections must comply with the National Electrical Code or in the absence of a National Code then all Local Electrical Codes.

A qualified electrician **MUST** compare the electrical power supply with the machine electrical specifications stamped on the MACHINE ELECTRICAL CONNECTION PLATE located inside the control cabinet before connecting the main power to the dishwasher.

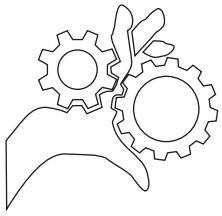


1. The Main incoming power to the dishwasher is made at the top of machine in the control cabinet.
2. The electrician must connect the incoming power based on the information that is stamped on the Machine Electrical Connection Plate.
3. Any change to the Machine Electrical Connection Plate must be approved by the factory in advance.
4. The dishwasher main power terminal block is located inside the top-mounted control cabinet.
5. A knock-out plug is provided at the rear of the control cabinet for electrical service connections.
6. Built-in electric booster heaters have a separate main power connection except Models 44 WS and 66WS.
7. Electric blower-dryers have a separate main power connection.
8. If the machine incoming voltage exceeds 208-240VAC then the Dual Rinse (DR) models have a step-down transformer mounted on the frame of the dishwasher to reduce the incoming voltage for the DR drain pump.

Electrical Connections (continued)

Motor Rotation

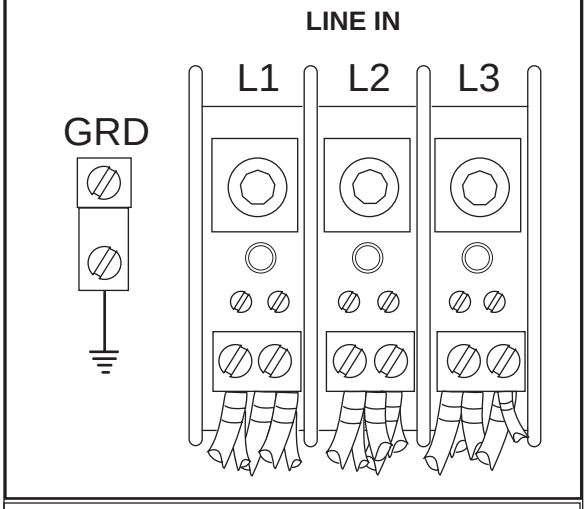
1. Motor rotation was set at the factory.
2. The conveyor drive motor rotation is indicated by a red arrow located on the side of the motor.
3. Check if all motors are running in the wrong direction.
4. Reverse the L1 and L2 wires on the output side of the dishwasher Main Terminal Block (MTB) located inside the top-mounted control cabinet.
5. The photograph to the right shows the conveyor drive motor with its direction arrow.
6. A wash pump/motor assembly can be seen in the back.



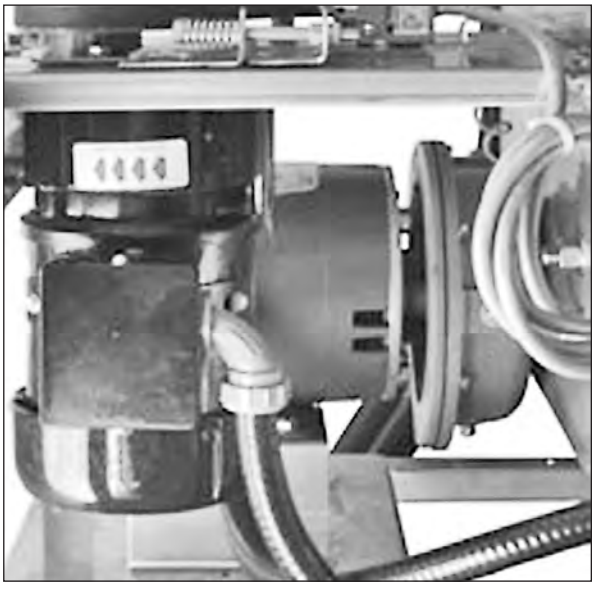
WARNING:
Moving Conveyor Parts may cause INJURY OR DEATH.
Keep hands and clothing clear of the conveyor when the conveyor is moving.

USE EXTREME CAUTION WHEN THE CONVEYOR IS MOVING.

THREE PHASE POWER CONNECTION



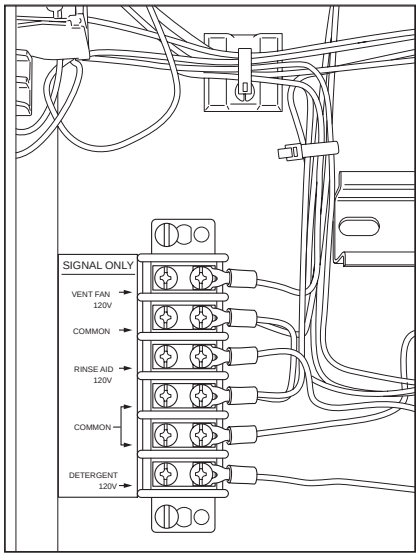
Main Terminal Block Inside the Top-mounted Control Cabinet.



Motor Direction Rotation Label on Motor Frame.

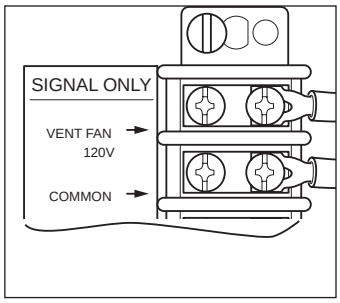
Chemical Connections

1. Use a qualified detergent/chemical supplier for detergent/chemical and dispensing equipment needs.
2. Labeled detergent control circuit connection terminals are provided in the control cabinet for detergent and rinse agent/sanitizer dispensing equipment (supplied by others).
3. The illustration on the right, shows the terminal board for the machine.
4. The signal connection points include:
   - Detergent signal 120VAC, 1A max load.
   - Rinse aid/Sanitizer signal 120VAC, 1A load.
   - Vent Fan 120VAC, 1Amp max amp load
5. A removable black plug is provided in the load end side of the wash tank for installation of the detergent conductivity cell.



Vent Fan Signal Connection

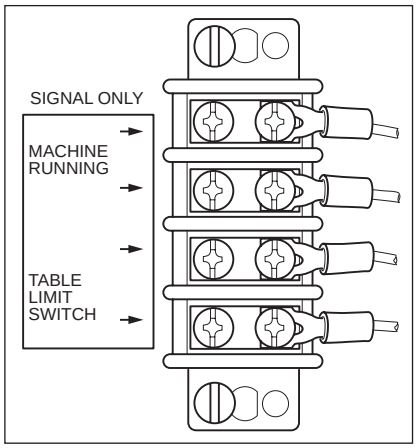
1. A terminal block is provided inside the top-mounted control cabinet to provide a 120VAC, 1 AMP Max Load signal.



NOTE:
The Vent Fan Signal Connection supplies 120VAC to a control relay (supplied by others) when the dishwasher is ON and O VAC when the dishwasher is OFF. Power to operate the vent fan (supplied by others) must be supplied separately.

Machine Running & Table Limit Switch Signal Connections

1. Connections are provided for systems that require that a signal to indicate the dishwasher is running.
2. A signal connection is provided to indicate that the dishwasher has stopped due to a conveyor jam or when the clean dish table is full of racks and additional racks cannot exit the machine.
3. The table limit switch option is recommended be installed on all dishwashers and can be ordered from the factory P/N 407400.

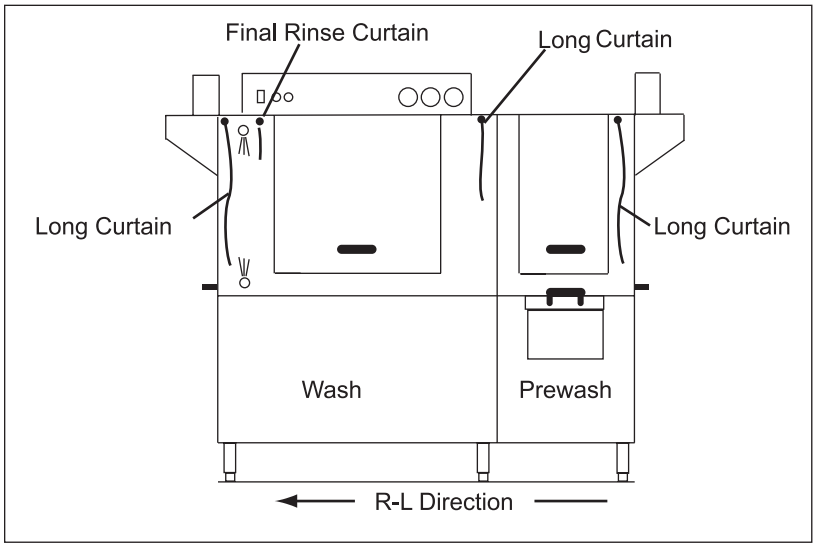


Curtain Locations

1. Refer to the illustrations below and hang the curtains as shown.
   J-hooks are located in the corners of each section to accept the curtain rods.

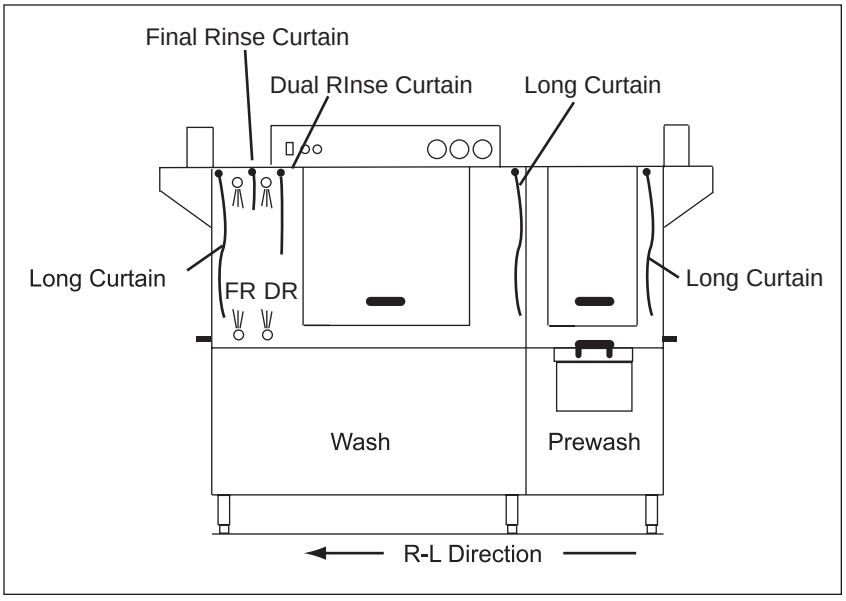
   - Standard long curtains 24” x 20-1/4”
   - High hood long curtains 24” x 22-3/4”
   - Standard short curtains and DR 24” x 13-/14”
   - High hood short curtains 24” x 20-1/4”
   - Final rinse curtain 24” x 6-1/4”

2. Make sure the that the short flaps of the curtains face the load end of the dishwasher. The longest curtains always go on each end of the dishwasher.



Single Tank Dishwasher Curtain Locations.

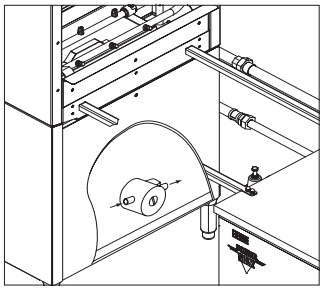
NOTE:
Misplacing a curtain or failing to install a curtain will adversely affect the proper operation of the machine.



Dual Rinse Single Tank Dishwasher with Prewash Curtains.

Hot Water Coil Tank Heat

Purging Air from the Dishwasher/Booster Heater System

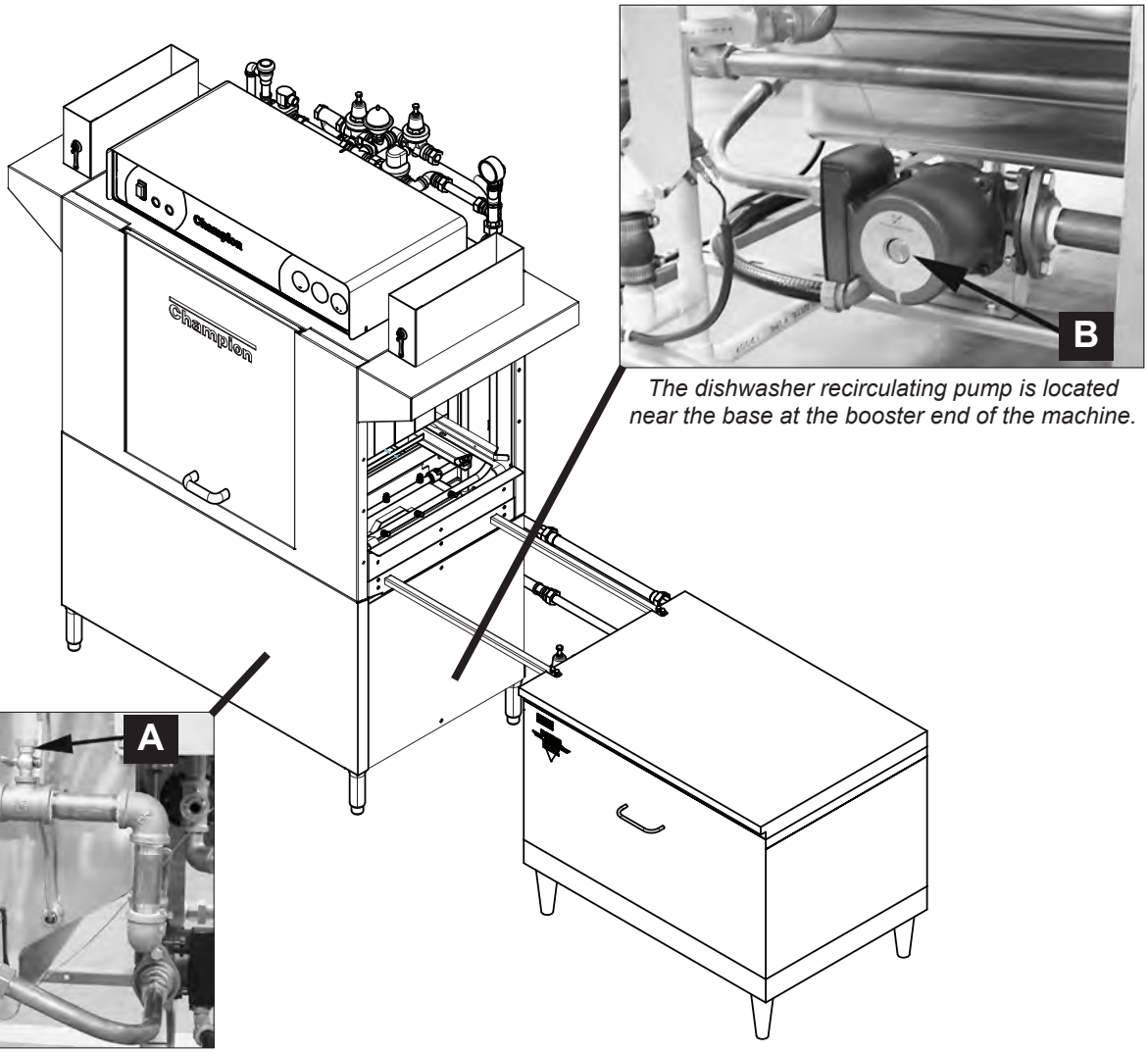


CAUTION:

PERMANENT DAMAGE to the hot water recirculating pump can occur if the air is not purged from the dishwasher/booster heater system prior to placing the dishwasher into service.

Follow the instructions carefully to prevent damage to the dishwasher hot water recirculating pump.

The air trapped in the Dishwasher Hot Water Recirculating Pump and Water Lines must be purged. Refer to the illustration below and follow the procedure on the next page.



The dishwasher recirculating pump is located near the base at the booster end of the machine.

The air purge petcock is located behind the dishwasher lower front panel at the booster end of the machine.

Hot Water Coil Tank Heat

Purging Air from the Dishwasher/Booster Heater System (continued)

Refer to the illustration on the previous page and follow the procedure below to purge the air from the system. Plumbing and electrical service connections must be completed before purging the system.

To purge the air:

1. Make sure the dishwasher main power switch is OFF.
2. Make sure the main water supply valve located at the booster heater is OFF.
3. Open petcock (A) on the inlet side of the dishwasher hot water heater coil.
4. Remove the silver plug located in the center of the recirculating pump.
5. Turn the main water supply valve ON. Water will begin to fill the booster heater and the dishwasher heater coil.
6. Water and air will begin to flow out of the purge petcock and the recirculating pump and eventually only water will be observed.
7. Turn the booster heater power switch ON.
8. Turn the dishwasher power switch ON. The dishwasher wash tank will begin to fill with water.
9. Continue to observe the petcock and the recirculating pump and make sure that there is a steady stream of water is flowing from (A) and (B).
10. Replace the silver plug (B) in the center of the recirculating pump then close the petcock (A).
11. Turn the dishwasher power switch OFF.
12. Purging is complete.

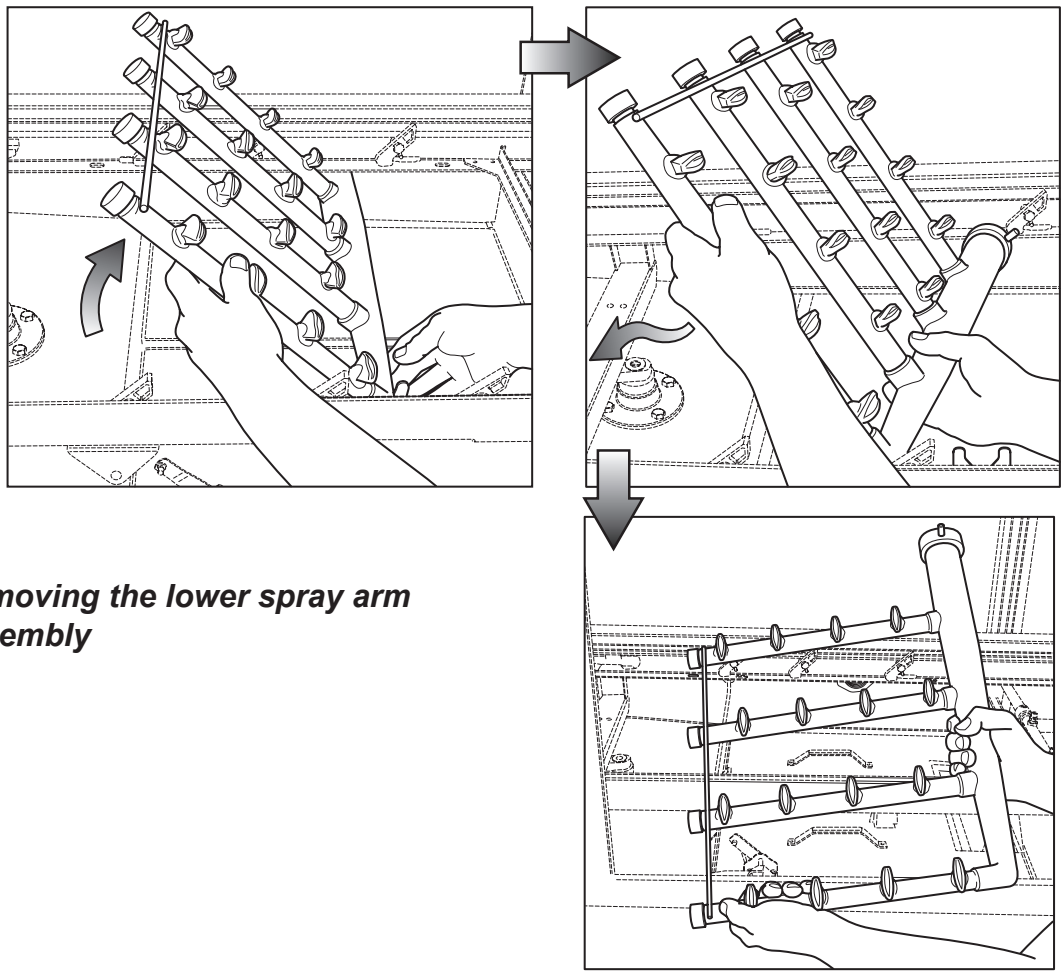
Door Safety Switches

Dishwasher access doors are equipped with a door safety switch that automatically stops the dishwasher pumps and conveyor drive if a door is raised while the dishwasher is running. In addition, the dishwasher will not start if a door is left open.

1. If the dishwasher is running and a door is raised, then lighted GREEN START pushbutton goes out and the pumps and conveyor drive stop.
2. Check the interior of the dishwasher for any dish racks still in the machine. These dish racks must be washed again to ensure they are washed and sanitized completely.
3. To restart the dishwasher, make sure all doors are closed, then push the GREEN START pushbutton.

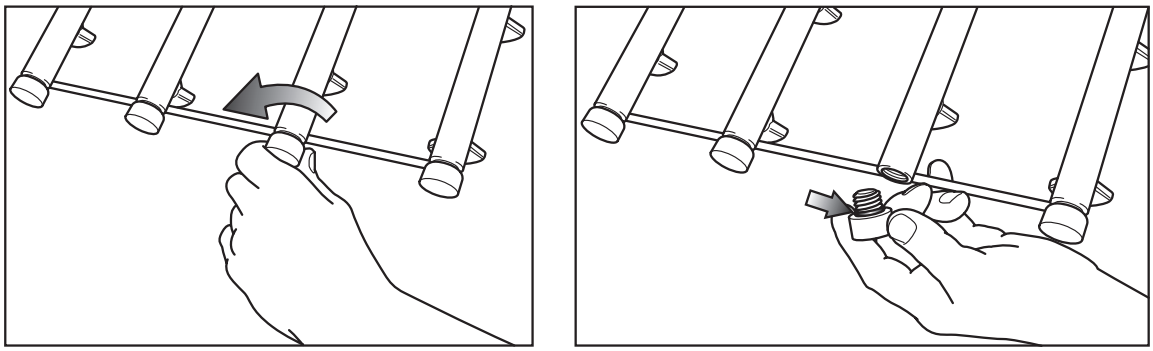
Spray arm and Scrap Screen Installation

The illustrations below and on the proceeding pages illustrate how to install and remove the spray arm assemblies and scrap screens.

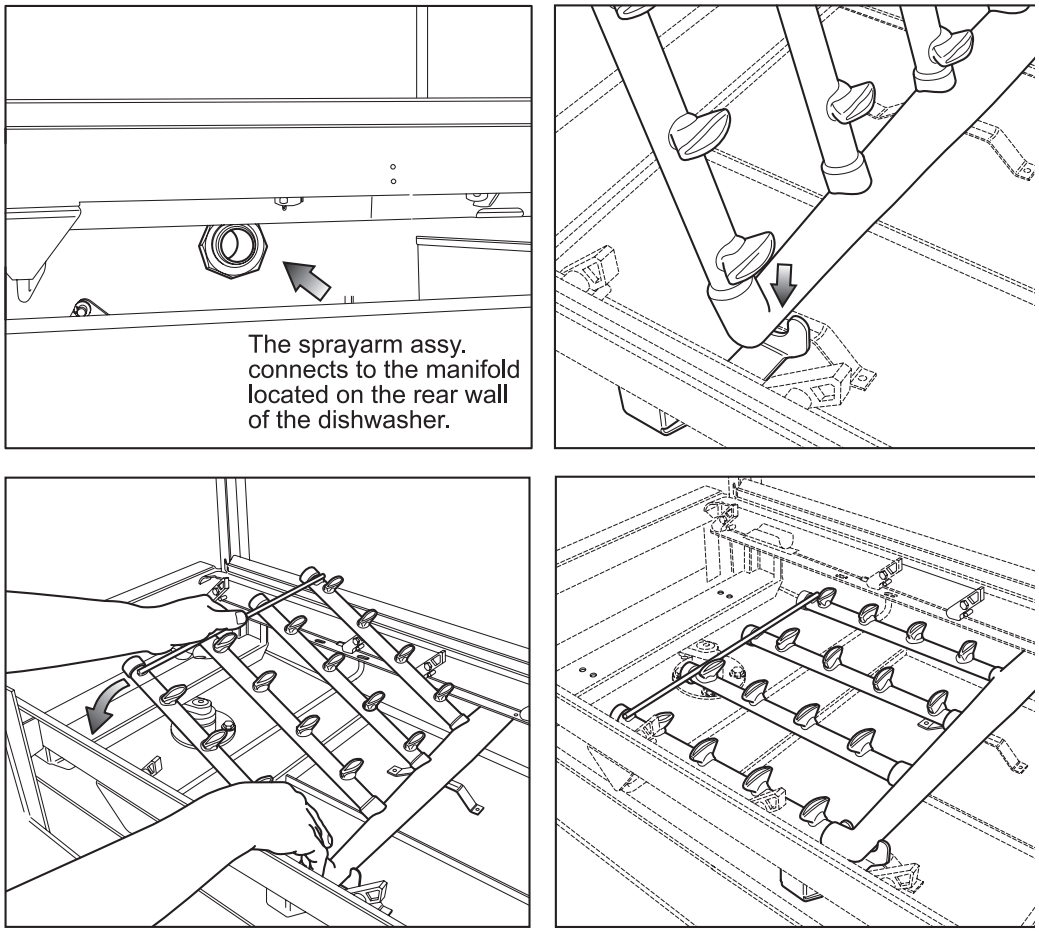


Removing the lower spray arm assembly

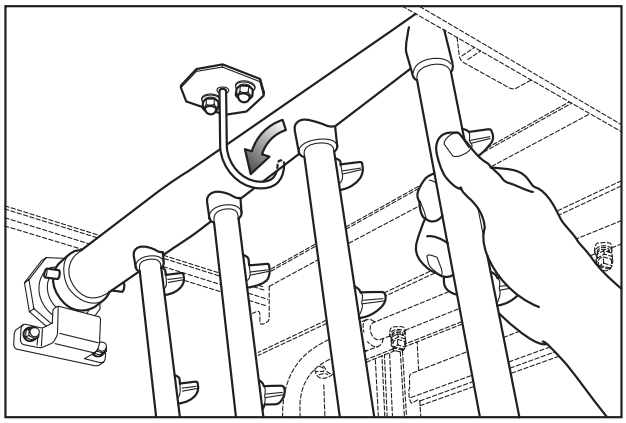
Removing the Spray arm End Plugs

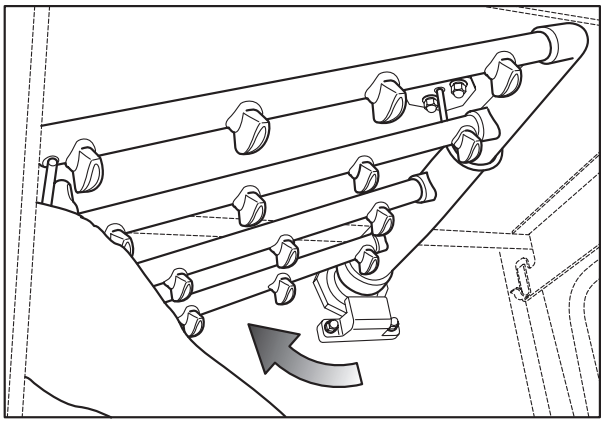


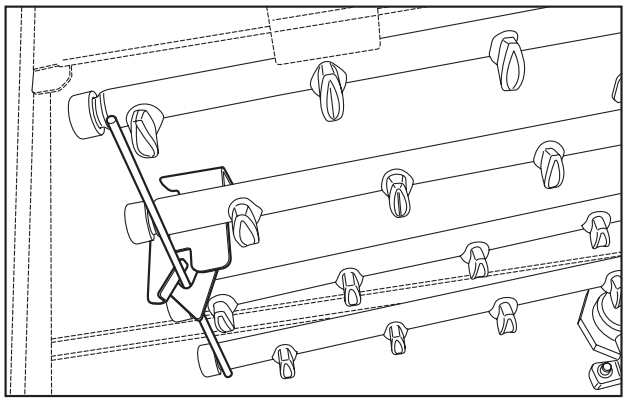
Installing the Lower Spray arm Assembly



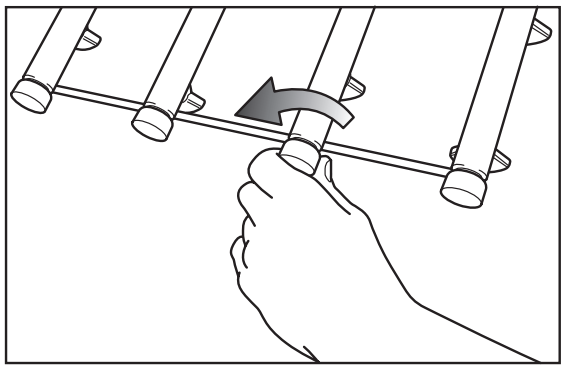
Installing the Lower Spray arm Assembly

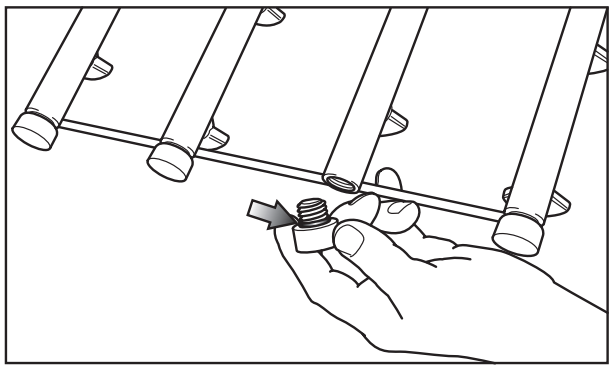




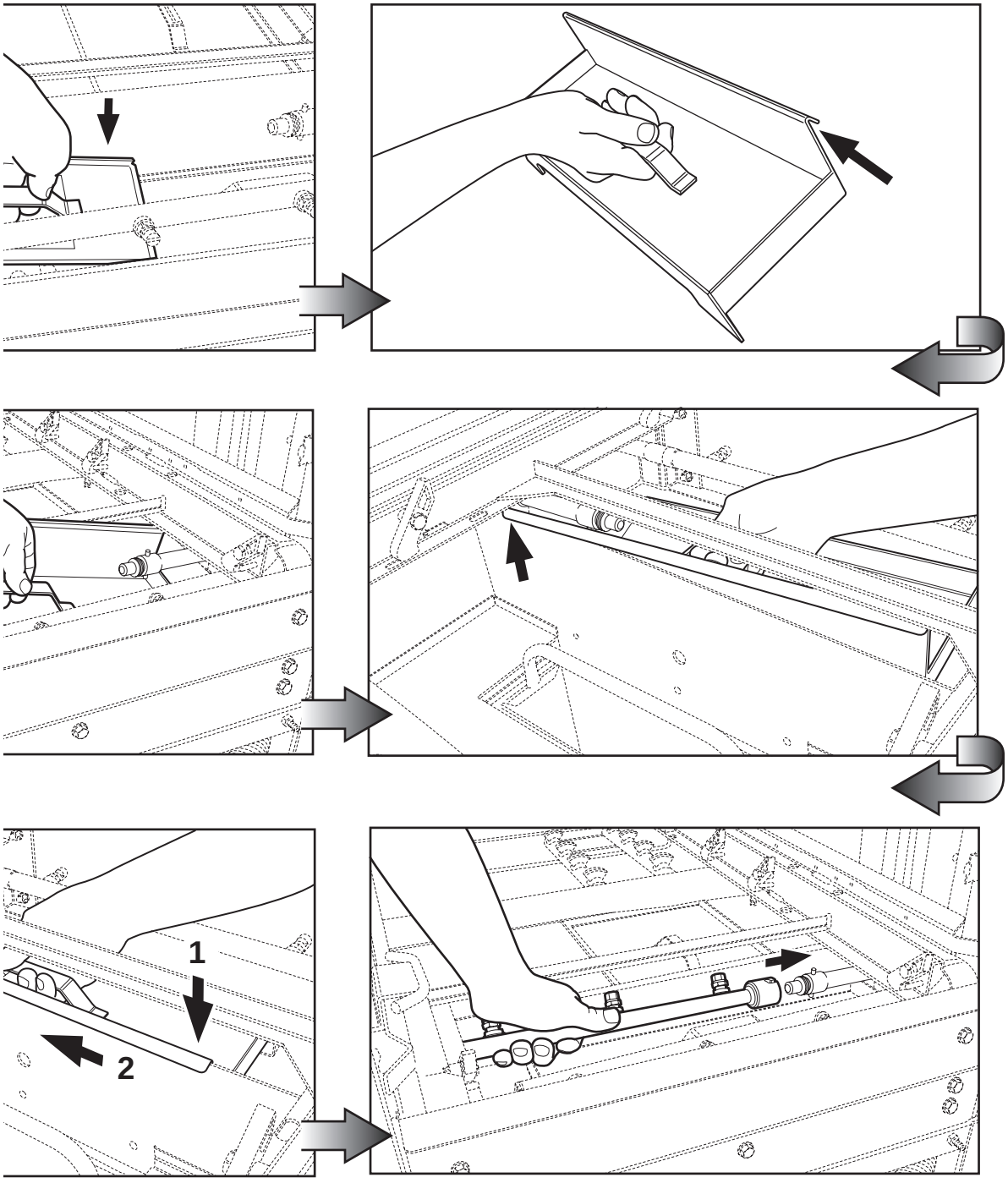


Removing the Spray arm End Plugs

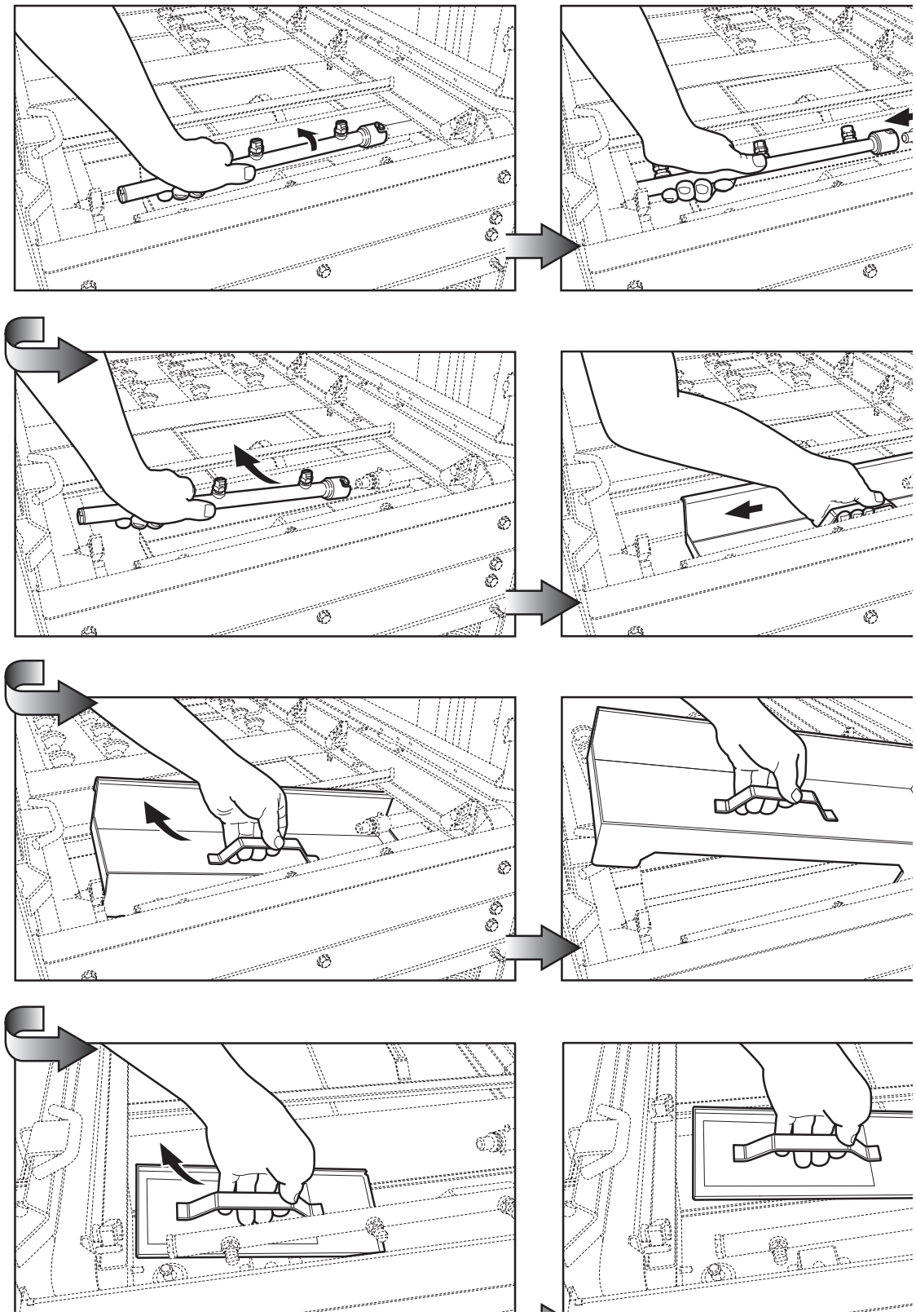




Removing the Dual Rinse (DR) scrap screens



Removing the Dual Rinse (DR) scrap screens (continued)



Check list

1. Remove white protective film from the dishwasher exterior.
2. Install lower panels to the dishwasher.
3. Remove any foreign material from inside of the machine.
4. Check dishwasher drain/overflows are closed and in securely seated.
5. Install scrap screens and baskets and spray arms.
6. Turn main utilities the dishwasher ON. (Power, water, steam if applicable).
7. Make sure doors are closed.
8. Turn dishwasher power switch ON.
9. Check tank water temperatures reach proper levels.
10. Check for leaks.
11. Drain the dishwasher and check that floor drains handle the water volume leaving the dishwasher.
12. Push the Start button.
13. Open each dishwasher door to make sure the safety switch stops the conveyor.
14. Restart the dishwasher.
15. Insert an empty dish rack into the load end of the dishwasher. The pumps and conveyor will run.
16. Allow the dish rack to travel to the unload end of the dishwasher. The final rinse and the DR rinse (if equipped) will run.
17. Allow the rack to exit the dishwasher. The dishwasher pumps should run an 90-seconds and stop.
18. Push the Stop button when the machine is running and the dishwasher should stop.
19. Push the dishwasher Power Switch OFF. The dishwasher should shut down.

Operation

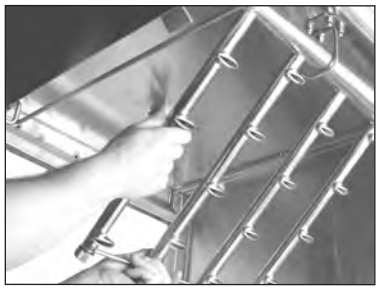
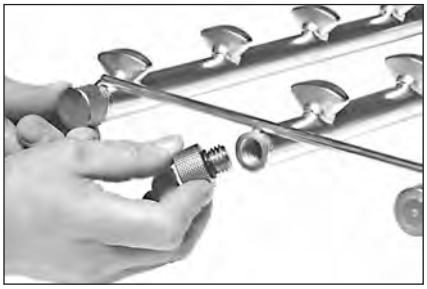
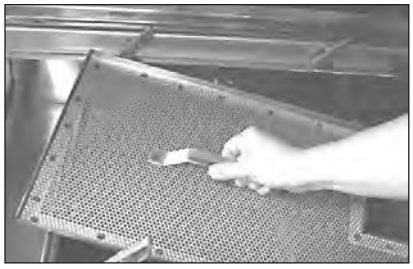
1. Check that the spray pipes, curtains, and scrap screens are in place and clean.
2. Check that the overflow drains are closed.
3. Check the chemical supplies. Turn on the detergent dispenser switches.
4. Turn on the exhaust vent system (if applicable), and make sure it is operating.
5. Close the door(s). Push the power switch ON, light will illuminate.
   Machine will begin to fill via the fill valve and the final rinse piping.
6. When the tanks are full, wait until the wash tank has reached the proper temperature. Check the wash tank temperature gauges located on the control cabinet. Minimum wash temperatures are:
   - 44 LT, 66 LT PW -140°F/60°C
   - 44, 54, 44 WS - 160°F/71°C to 175°F/79°C
   - 66 PW, 76 PW, 66 WS PW - 160-175°F/71-79°C
   - 2-tank (Wash) 150-165°F TO 66°F/74°C
     (Power Rinse) 165-180°F TO 74°F/82°C
   - Final Rinse for all models is a minimum of 180-195°F/82-91°C.
   - Dual Rinse (if equipped) is 165-180°F/74-82°C Rinse for all models.
   - Prewash for all models has no temperature rating.
7. Push the Green start button. The pushbutton illuminates indicating the dishwasher is ready for automatic operation.
8. Pre-scrap wares to remove large food particles and load wares into the dish racks.

   DO NOT OVERLOAD RACKS.

9. Pegged racks are for plates and/or trays. Flat racks are for bowls and/or silverware. Spread silverware evenly in a single layer in a flat rack or upright (loosely packed) in a cutlery rack/cylinder.
10. Push a dish rack into the load-end of the dishwasher until it contacts the idle pump switch lever, the conveyor and pumps will start.
11. The dishwasher will run for 90 seconds to wash, rinse and move the dish rack out of the unload-end of the dishwasher.
12. Inserting another dish rack into the machine before the first rack exits will keep the dishwasher running until the last dish rack exits the machine.
13. Check the final rinse pressure and temperature as the racks pass through the final rinse. This final rinse pressure MUST be 20-22 psi [137.8-145 kPa] and the final rinse temperature MUST be a minimum of 180-195°F/82-91°C .
14. The pumps and the conveyor drive will automatically stop after the last rack exits the machine.
15. The machine may be stopped at any time during the cycle by pressing the red STOP pushbutton. The green light or LED will go out.
16. Check the interior of the dishwasher for any dish racks still in the machine. These dish racks must be washed again to ensure they are washed and sanitized completely.
17. To restart, push the green START pushbutton and push another dish rack into the dishwasher load-end until the pumps and conveyor start again.
18. Repeat steps 7-10 until all wares are washed.

Cleaning

Cleaning your dishwasher is the best maintenance you can do.
The cleaning intervals below are the minimum requirements for most dishwashers.
You may need to clean your dishwasher more often when washing heavily soiled wares or during long hours of continuous operation.

Daily or every 2 hours of operation

1. Turn power switch to OFF.
2. Pull drain lever(s) to drain water. Remove scrap screens and scrap baskets.
   Clean inside of the tanks and flush with clean water.
   Back flush the scrap screens until clean.

DO NOT STRIKE SCREENS OR BASKETS AGAINST SOLID OBJECTS

3. Remove the spray arm assemblies. Remove the end cap from each spray arm.
4. Flush the spray arms and nozzles to remove any debris.
5. Replace the end caps. Check the condition of the manifold O-ring.
6. Reinstall the spray arms.
7. Remove and clean the curtains. Allow them to dry at the end of the day.
8. Leave the doors open between operations, allowing the machine to dry.
9. Make sure that the final rinse nozzles are clear of mineral deposits.
10. Straighten a metal paper clip to clean the nozzles.
11. Check the temperature and pressure gauge readings during operation.
12. Inspect the machine for signs of water leaks.
13. Check the chemical supplies and refill as necessary..

Cleaning (continued)

At the End of the Day

1. Perform Steps 1-10 on the previous page.
2. Remove the upper and lower rinse and wash spray arms and end plugs and flush with fresh water.
3. Remove the Dual Rinse (DR) rinse arm assemblies and flush with fresh water.
4. Clean the final rinse arm nozzles using a small paper clip.
5. Remove the curtains and clean with fresh water.

DO NOT USE STEEL WOOL TO CLEAN THE INTERIOR OF THE MACHINE.

Wipe the interior and exterior of the machine with a soft cloth and a mild detergent.

DO NOT HOSE THE EXTERIOR OF THE MACHINE WITH WATER.

6. Reassemble the dishwasher and leave the door open to allow overnight drying

7. Contact the chemical supplier for de-liming if required.

De-liming

Lime (scale) deposits are the result of minerals contained in the water feeding the dishwasher and appear as a white haze on the surface of the dishwasher. Severe scaling can appear as a granular deposit. These deposits are a result of the mineral content in the geographic area of the machine's location.

WARNING:
Death or injury can result from toxic fume when de-liming agents come in contact with Chlorine Bleach, or other chemicals that contain iodine, bromine, or fluorine.

USE EXTREME CAUTION WHEN HANDLING ANY DE-LIMING AGENT

CAUTION:
De-liming agents can cause chemical burns.
Wear rubber gloves, eye protection and any other protective clothing as instructed by a qualified chemical supplier and follow the instructions provided by the chemical supplier.

Maintenance

Weekly

1. Inspect all water lines for leaks and tighten at joints if required.
2. Clean any detergent residue from the exterior of the machine.
3. Check that the drain/overflow pipes seat tightly in their drains.
4. Clean any accumulated scale from the heating element.
5. Inspect the spray arms for any damage or missing parts.
6. Inspect the final rinse arms for missing parts.
7. Inspect the pawl bar and drive assembly for damage or missing parts.
8. Check that float switches move freely.
9. Check the idle pump actuator and the final rinse actuator for freedom of travel.

Monthly

1. Inspect interior of machine for lime deposits and clean.
2. Check o-rings on spray arm piping connections.
3. Check that the drain/overflow o-rings
4. Clean any accumulated scale from the heating element.
5. Inspect the spray arms o-rings and ensure all plugs are installed.
6. Inspect the final rinse arms for missing parts and are clean.
7. Inspect the pawl bar and drive assembly for damage or missing parts.
8. Check that float switches move freely.
9. Check the idle pump actuator and the final rinse actuator for freedom of travel.
10. Check the drive clutch and adjust as necessary.
11. Check the pump rotation and direction of rotation.
12. Check the operation of temperature gauges or displays.
13. Perform complete operation check.

Yearly

1. Contact authorized service agent to perform complete maintenance review of machine.
2. Correct any abnormal situations as recommended.

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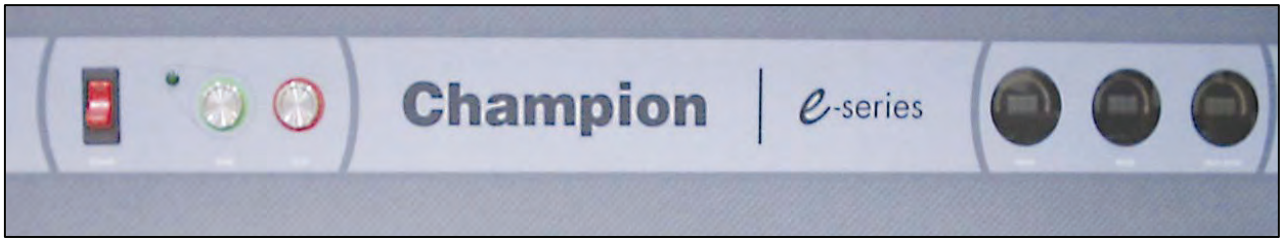
E-Rack Digital Temperature Display Meters

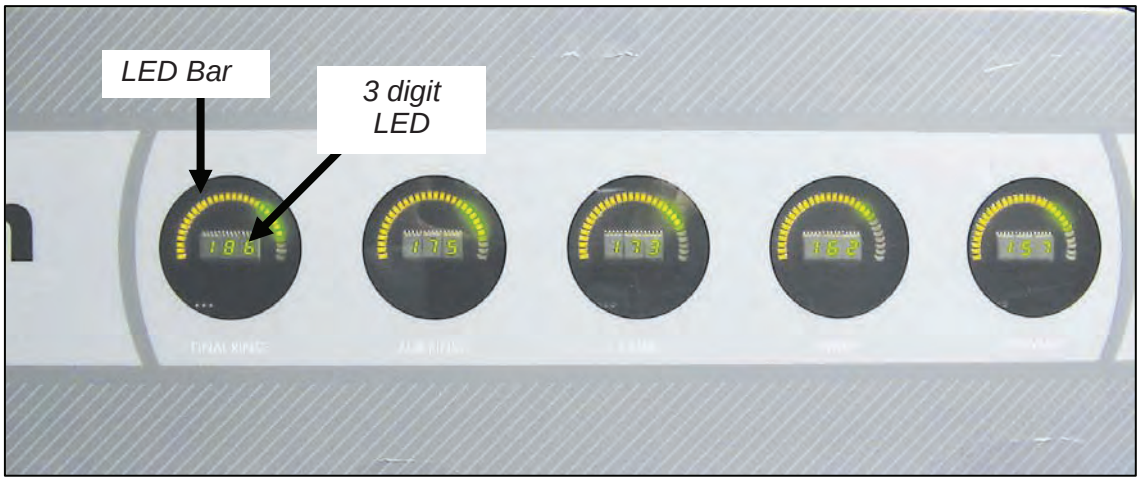
ATTENTION:
The Digital Temperature Displays only indicate temperature, they do not control wash tank or final rinse booster heaters. Electro-mechanical thermostats continue to control the tank and final rinse heat circuits.

1. The analog temperature gauges have been replaced with digital temperature display meters.
2. The meters display temperatures for the prewash tank (if equipped), the wash tank, power rinse tank (if equipped), the DR dual rinse tank (if equipped), and the final rinse.
3. A meter displays temperature in 2 ways:
   a. The first display is a semi-circular LED bar that moves from left to right; as the temperature increases in magnitude. The color of the bar changes from black, to orange, and to green.
   b. The second display is a 3 digit LED that changes from OFF if the tank or final rinse heat is disabled, to Blank and from a minimum temperature of 70° F to the maximum calibrated temperature set point of the meter.

   (Refer to the "Display Meter Operation Checks" on the next page to change a Meter set-point.)



Control cabinet showing digital temperature display meters on the right-hand side of the control cabinet.



Close-up view of the display meters. Note the semi-circular indicator bars and the numeric read-outs in the center.

Display Meter Operation Checks

Check the Meter LEDs:

1. Turn the Dishwasher Power Switch ON.
   The 3-digit LEDs illuminate simultaneously, then each LED bar illuminates from left-to right.

Check the Meter Temperature Set-point:
Refer to the photo below and the "Rear view of the Digital Display Circuit Board on the next page.

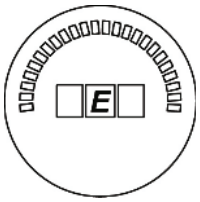
1. Remove the top-mounted control cabinet panel. Locate the CHECK pushbutton on the rear of the display. The push button is located at the top and center of the board.
2. There are 6 set-point values: 70,120 ,150,160,165, and 180° F.
3. Turn the dishwasher Power Switch ON, then
   Push and Hold the CHECK push button. Meter 1 flashes the current user-defined set-point. Meter 2 is blank.
4. Continue to Hold the CHECK push button. Meter 1 blanks out and Meter 2 flashes its current set-point value of 70,120 ,150,160,165, and 180° F.
5. Release the CHECK button. Meter 1 and Meter 2 display the actual temperatures in the wash tanks.
6. A final rinse Meter will display OFF until the final rinse switch is activated, then the meter displays the actual final rinse temperature which is measured at the final rinse manifold.

Change the Meter Temperature Set-point:
The set-point determines how the meter displays the yellow & green bar. For example, if the set-point is 70, then the bar displays yellow from 0-70 then green from 70 and above.

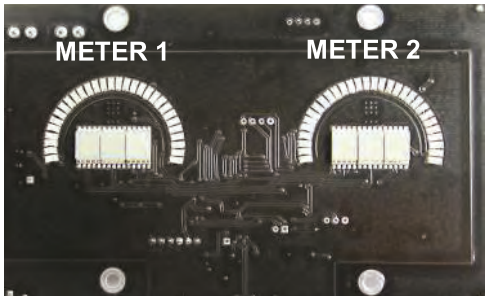
1. Push and Hold the CHECK pushbutton until Meter 1 display flashes.
2. Release the CHECK pushbutton. Meter 1 steps through the set-point values each time the CHECK pushbutton is pushed and released. The set-point value advances from 70,120,150,160 and 180° F.

Set-point value of 70°F

3. When the new set-point appears on the display, hold the CHECK pushbutton until the display flashes. The number that is displayed is the new set-point. If the display advances past the desired set-point, then repeat Steps 1-2.
4. In order to change Meter 2, Push and Hold the CHECK pushbutton until Meter 1 flashes. Continue to Hold the CHECK pushbutton until Meter 2 flashes, and then repeat Steps 2-3 for Meter 2.



Important:
The letter "E" appears in the center of the 3-digit display when the thermister is shorted or open.



Calibration:

Calibration is an internal function of the display circuit board and does not calibrate temperature control of the dishwasher components.

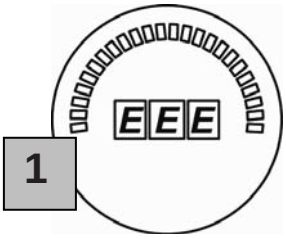
NOTE:
The Thermister Plug and 1 wire from the Rinse Switch Connector must be disconnected from the display circuit board before calibration.

To calibrate the display board:

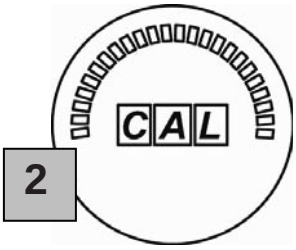
1. Turn dishwasher Power Switch OFF.
2. Disconnect the thermister plug and at least 1 wire from the rinse switch connector.
3. Turn Power Switch ON.
4. Press and hold the CHECK pushbutton while pressing and releasing the RESET button.
5. Release the CHECK pushbutton.
6. Display shows “CAL” flashing on METER 1 and METER 2.

NOTE:
If the display shows "EEE", then the thermister plug is not disconnected. Disconnect the thermister plug and repeat Steps 1-6 above.

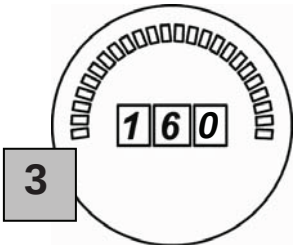
7. Press and hold the TEST A pushbutton to calibrate Meter 1 *(Test B for Meter 2).*
8. The display calibrates and shows "160".
9. Release TEST A pushbutton. An "E" flashes in the center of METER 1.
10. Press the RESET pushbutton to exit the calibration mode.
11. Repeat Steps 2-8 to calibrate Meter 2.
12. Turn the dishwasher Power Switch OFF and reconnect the thermister plug and rinse switch connector wire.
13. Turn Power Switch ON and return to normal operation.



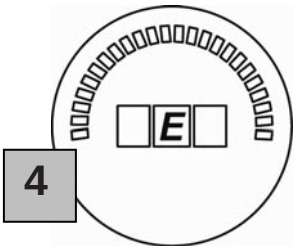
Thermister was not unplugged before calibration



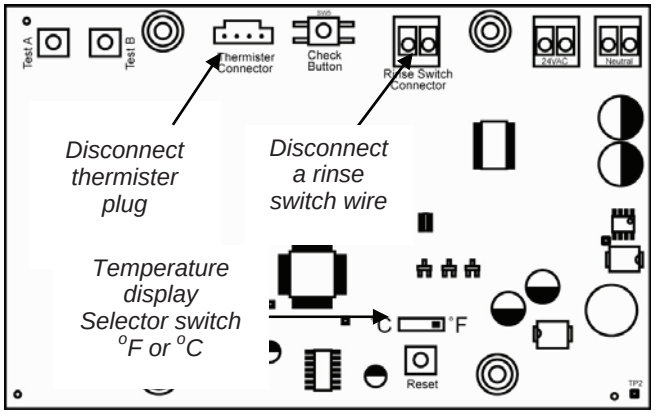
Display board is in the calibration mode



Meter calibrated



Calibration complete when "E" flashes

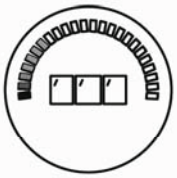


Rear Detail View of Digital Display Circuit Board

Display Codes and Definitions

The illustrations below show the codes that may appear in the temperature meter displays.

START-UP



Number and bar LEDs cycle:

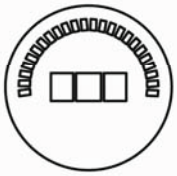
1. This is the Display segment test when the dishwasher power is turned ON.
   Check for defective LED segments during the test.

ERROR

E displayed and bar is blank:

1. Thermister is open or shorted.
   Troubleshoot the thermister circuit connected to the display meter.

OPERATION



Numbers and bar are blank:

1. Main power or dishwasher OFF.
2. Tank temp. below 70°F/21°C.

Turn power OFF, then ON to check display segments (see below).

ALL DISPLAY METERS

Numbers indicate between 70-209°F or 21-99°C; and the bar is illuminated left-to-right, from yellow to green:

1. Normal display meter operation.
2. Meter displaying temperature.

FINAL RINSE METER ONLY

OFF displayed - bar is blank:

1. Final rinse start switch is not operated and final rinse water is not flowing.

HHH displayed and entire the bar is lit:

1. The temperature in the tank has exceeded 210°F/99°C.
   Reset the hi-limit thermostat, then adjust or replace the temperature control thermostat.

CALIBRATION

1

CAL displayed and bar is blank:

1. Display meter is in the calibration mode.
   Press the RESET pushbutton on the display board to exit mode.

2

EEE displayed and bar is blank:

1. Display meter is in the calibration mode.
2. The thermister was not unplugged prior to calibration.

3

160 displayed and bar is blank

1. Display meter is calibrated.
   The meter should flash "E" in a few seconds.

4

E flashes and bar is blank.

1. Calibration operation is complete for the display meter.
   Press the RESET pushbutton on the display board to exit mode.

Before calling for service check the following conditions.

1. Dishwasher main power and water supply is on.
2. Machine has been assembled correctly.
3. Conveyor is clear of any obstructions.
4. Drains are closed.
5. Screens and pump intake screens are clear.
6. Doors are closed and secure.

Condition	Cause	Solution
Dishwasher will not run.	Door not closed. Main power OFF. Dishwasher OFF. Dish rack inserted wrong	Close door completely. Check breaker on panel. Turn dishwasher ON. Check dish rack loading.
Low or no water.	Main water supply off. PRV setting incorrect Solenoid strainer clogged. Solenoid valve defective.	Open supply valve. Adjust the PRV setting Clean strainer. Contact Service Agent.
Poor wash results.	Detergent not added to tank Wares incorrectly loaded. in dishrack. Clogged screens . Clogged spray arms. Thermostat defective. End plugs missing. Water temperature low.	Check detergent suppy. Reposition wares or reduce amount of wares. Clean screens.. Clean spray arms. Contact Service Agent. Check spray arms. Check incoming water temperature.
Dishwasher stays in wash cycle.	90-second timer defective	Contact Service Agent
Dishwasher conveyor will not run.	Conveyor jammed or table limit switch has stopped conveyor.	Check conveyor for jams Remove racks from load end of table.

Service Replacement Parts

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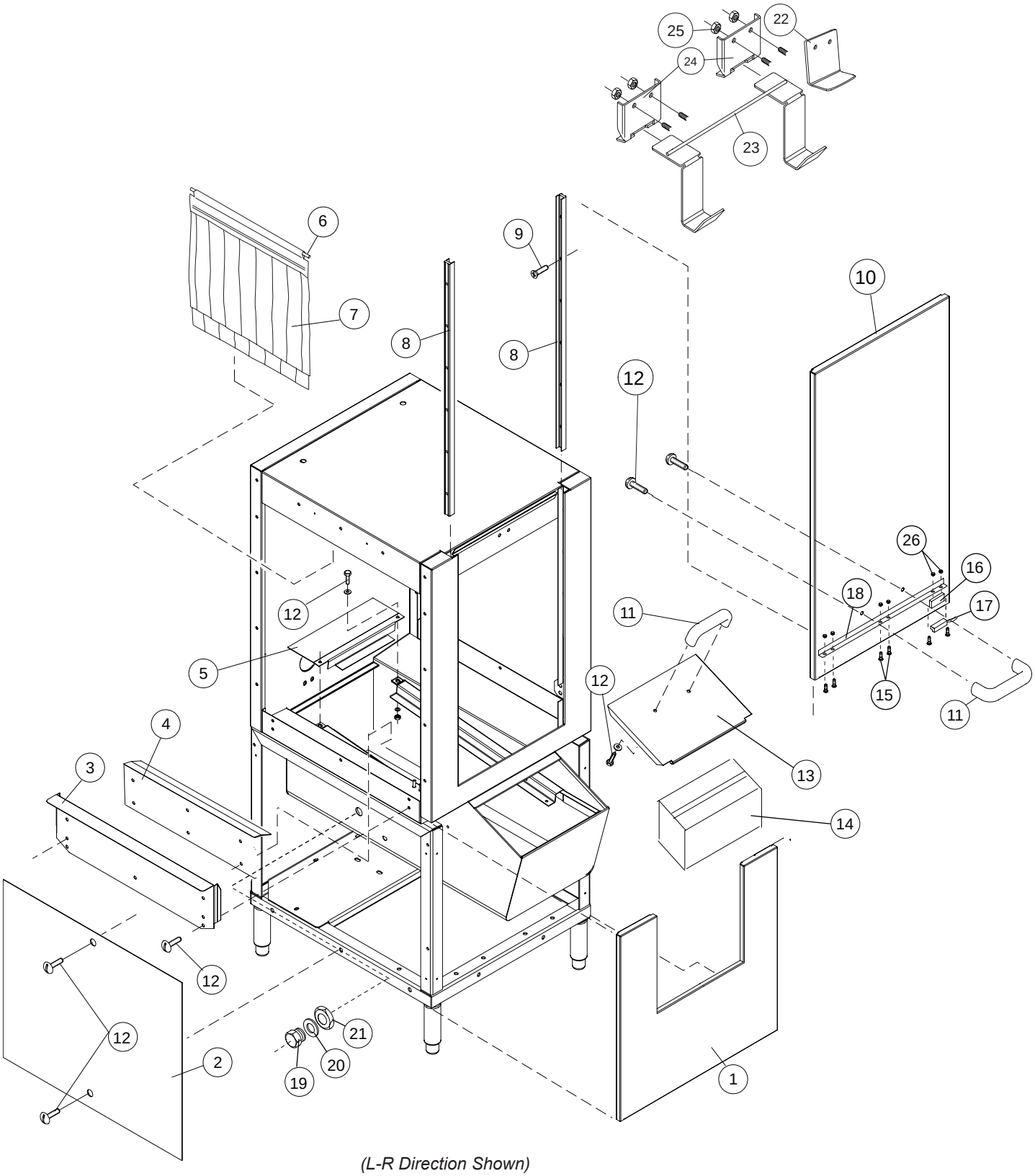
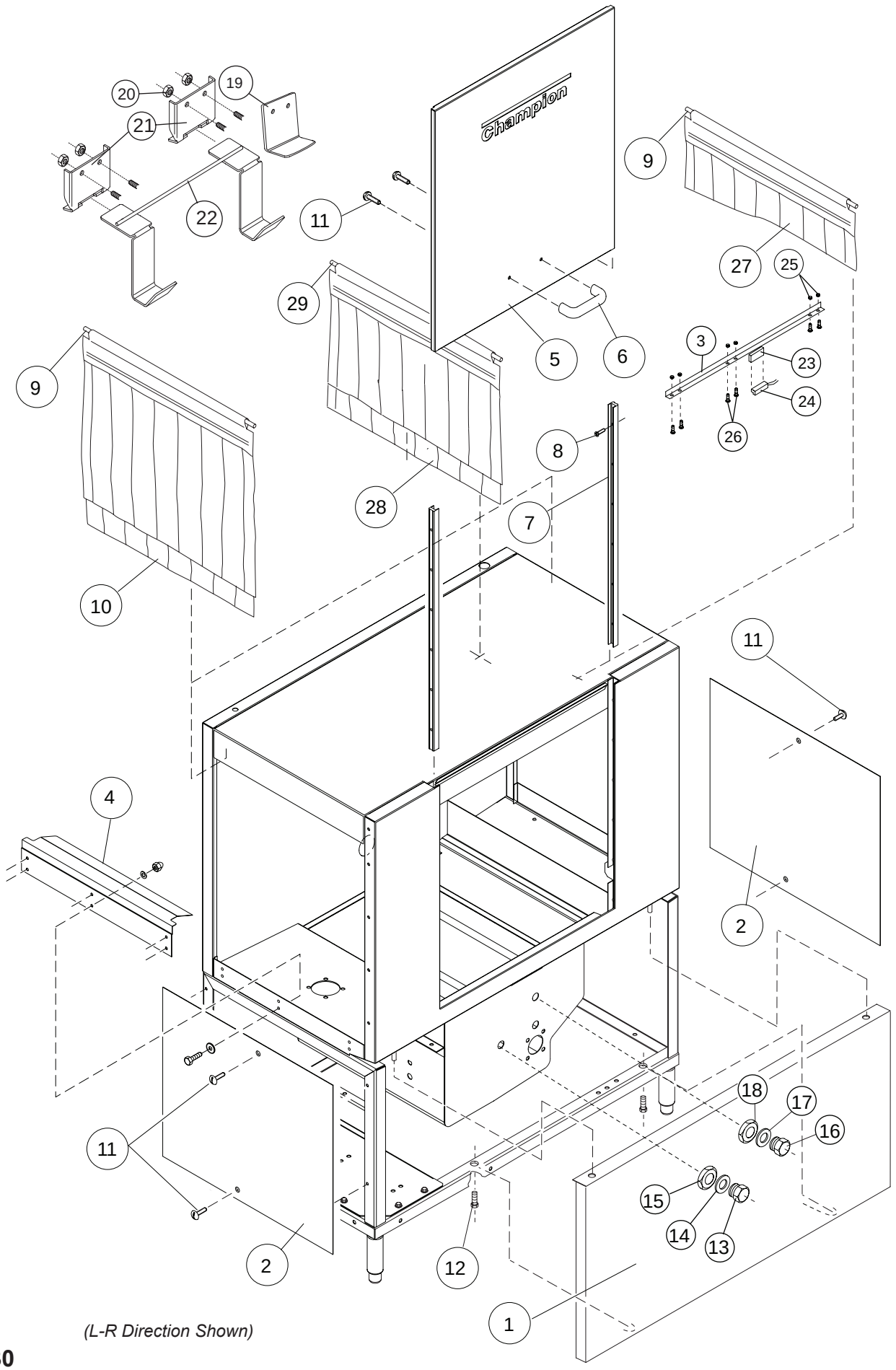


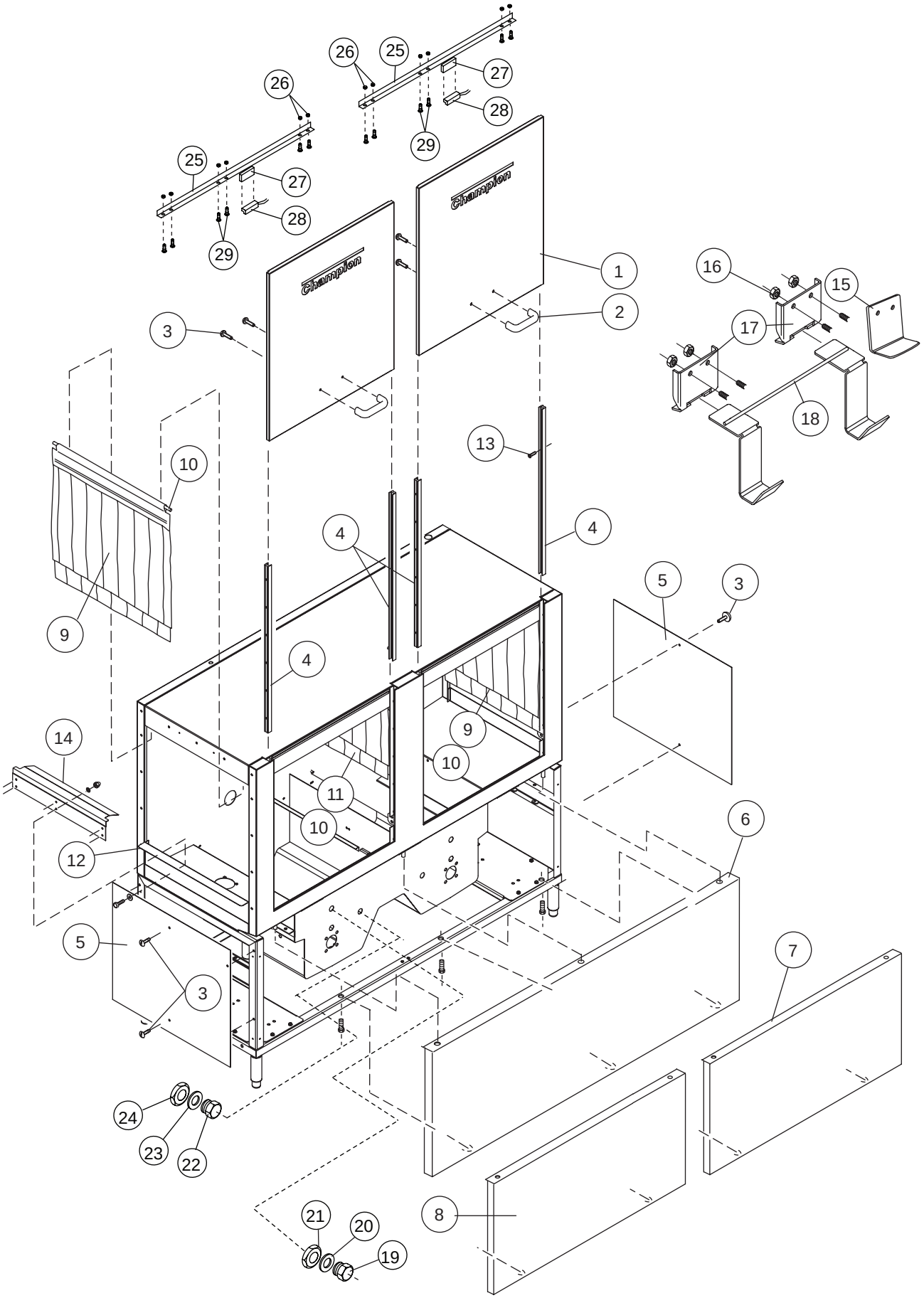
(L-R Direction Shown)

Item No.	Part No.	Description	Qty.
1	328977	Panel Assy. Front Perimeter 22" PW Prewash	1
-	328978	Panel Assy. Front Perimeter 36" PW Prewash	1
2	329351	Panel, 25" End Standard	1
3	328030	Table Flange Support	1
4	329926	Baffle, Table Flange	
5	328006	Support, 22" PW Rear Screen	1
6	113828	Rod Curtain 5/16 x 24-5/8"	2
7	113720	Curtain 24 x 20-1/4"(load end)	2
8	113691	Guide, U-channel Door	2
9	113486	Screw 8-32 x 5/8" Flat Hd SST	12
10	327952	Door, E22 15" Prewash	1
-	327857	Door, E36 26" Prewash	1
11	108966	Door Handle	2
12	100073	Screw 1/4-20 x 1/2 Truss Head	2
13	328427	Cover, Refuse Basket 22"	1
-	328524	Cover, Refuse Basket 36"	1
14	328959	Basket, Refuse 22"	1
-	328967	Basket, Refuse 36"	1
15	100764	Screw, 6-32 x 1/2" Round Hd. SST	6
16	113937	Magnet, Door Safety	1
17	113719	Switch, Door Safety	1
18	329986	Bracket, E15" Door Water Diverter	1
-	329985	Bracket, E26" Door Water Diverter	1
19	108418	Plug, 1/2"	2
20	109034	Gasket	2
21	108417	Nut	2
22	331981	Bracket, Door Stop	1
23	328909	Dual Hook, Door	1
24	317345	Bracket, Door Catch	2
25	100141	Nut, Plain 1/4-20 SST	4
26	108954	Grip Nut, 6-32 w/nylon insert SST	6



(L-R Direction Shown)

Item No.	Part No.	Description	Qty.
1	328974	Panel Assy., 44 Front Perimeter	1
-	330981	Panel Assy., 54 Front Perimeter	1
2	329351	Panel, 25” End Standard	1
3	329985	Bracket, Water Diverter	1
4	329926	Baffle	1
5	327857	Door, E 26"	1
6	108966	Door Handle	1
7	113691	Guide, U-channel Door	2
8	113486	Screw, 8-32 x 5/8 Flat Head SST	12
9	108250	Rod, Curtain 5/16 x 24-5/8	2
---	113828	Rod, Curtain, 5/16 x 21-1/2"	2
10	113720	Curtain 24 x 20-1/4 4 Ply	2
---	109723	Curtain 24 x 6 -1/4 (RInse Curtain)	1
11	100007	Screw 1/4-20 x 1/2 Truss Head SST	6
12	100734	Bolt 1/4-20 x 1/2 SST	3
13	113943	Plug, 3/4"	2
14	108602	Gasket	2
15	113944	Nut	2
16	108418	Plug, 1/2"	4
17	109034	Gasket	4
18	108417	Nut	4
19	331981	Bracket, Door Stop	1
20	100141	Nut, Plain 1/4-20 SST	4
21	317345	Bracket, Door Catch	2
22	308133	Dual Hook, Door	1
23	113937	Magnet, Door	1
24	113719	Switch, Reed Aleph	1
25	108954	Grip Nut, 6-32 w/nylon insert SST	8
26	100764	Screw, 6-32 x 1/2" Round Hd. SST	8
27	109723	Curtain, Short Rinse, 24" x 6-1/4"	1
28	108043	Curtain, Medium, 24" x 13-1/4" Rinse	1
29	114012	Rod, Curtain, 5/16" x 23-5/8"	1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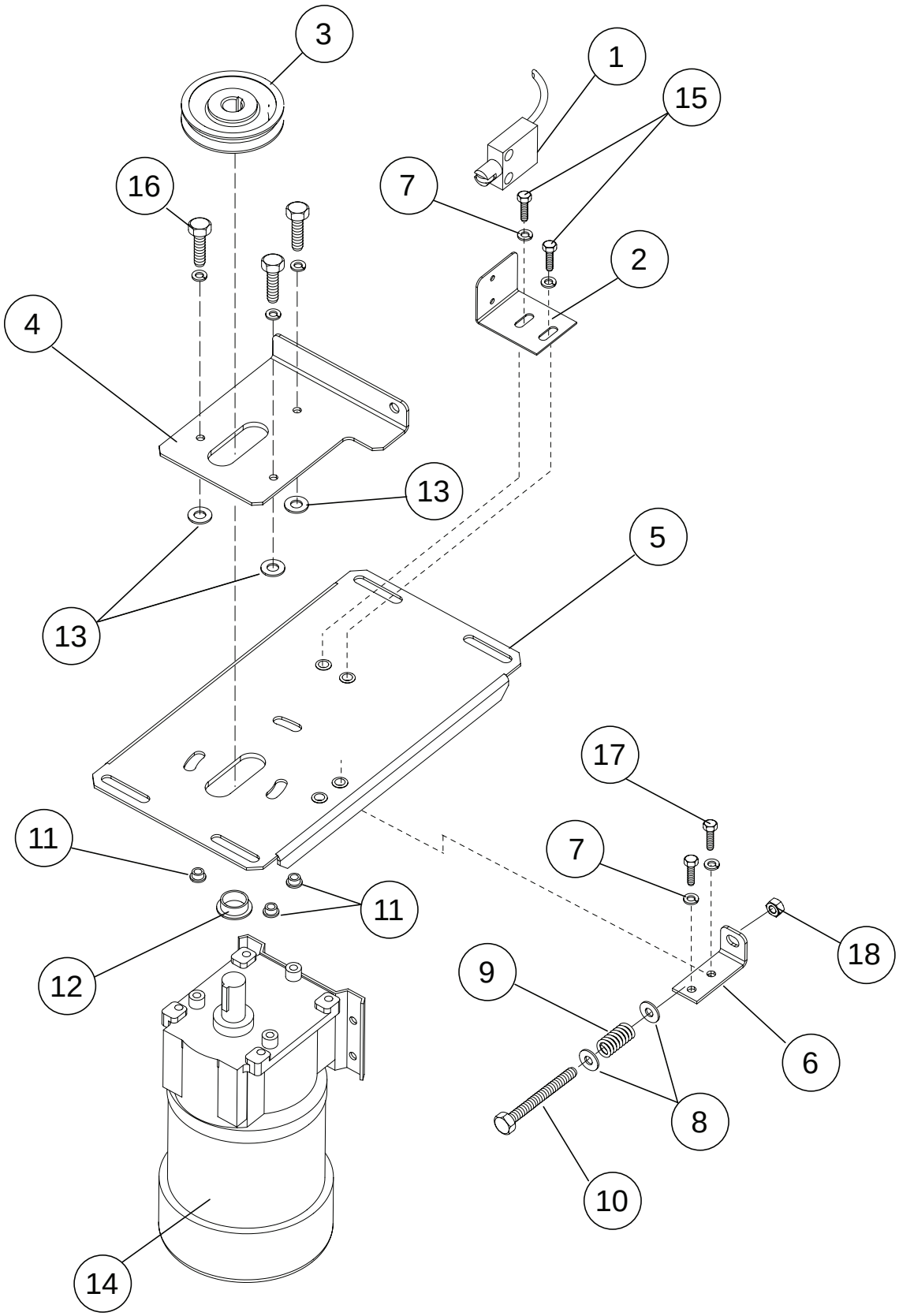
Item No.	Part No.	Description	Qty.
1	327857	Door, E26"	2
2	108966	Door Handle	2
3	100073	Screw 1/4-20 x 1/2 Truss Head	8
4	113691	Guide, U-channel Door	4
5	329351	Panel, 25” End standard	1
6	328975	Panel, 64 Front Perimeter	1
7	328976-01	Panel, 84 Front Perimeter Right Hand	1
8	328976	Panel, 84 Front Perimeter Left Hand	1
9	113720	Curtain 24 x 20-1/4” (Load/Unload)	2
10	108250	Rod, Curtain 5/16 x 24-5/8”	4
11	108043	Curtain 24 x 13-1/4” (between wash and rinse)	1
---	114012	Rod, Curtain, 5/16" x 23-5/8" (use with Item No. 11)	1
---	109723	Curtain 24 x 6-1/4” (Rinse/Final Rinse)(Not Shown)	1
12	328030	Table Flange	2
13	113486	Screw 8-32 x 5/8 Flat Head SST	12
14	329926	Baffle	1
15	331981	Bracket, Door Stop	1
16	100141	Nut, Plain 1/4-20 SST	4
17	317345	Bracket, Door Catch	2
18	308133	Dual Hook, Door	1
19	108418	Plug, 1/2"	4
20	109034	Gasket	4
21	108417	Nut	4
22	113943	Plug, 3/4"	4
23	108602	Gasket	4
24	113944	Nut	4
25	329985	Bracket, Water Diverter	2
26	108954	Grip Nut, 6-32 w/nylon insert SST	16
27	113937	Magnet, Door	2
28	113719	Switch, Door Safety	2
29	100764	Screw, 6-32 x 1/2" Round Hd. SST	16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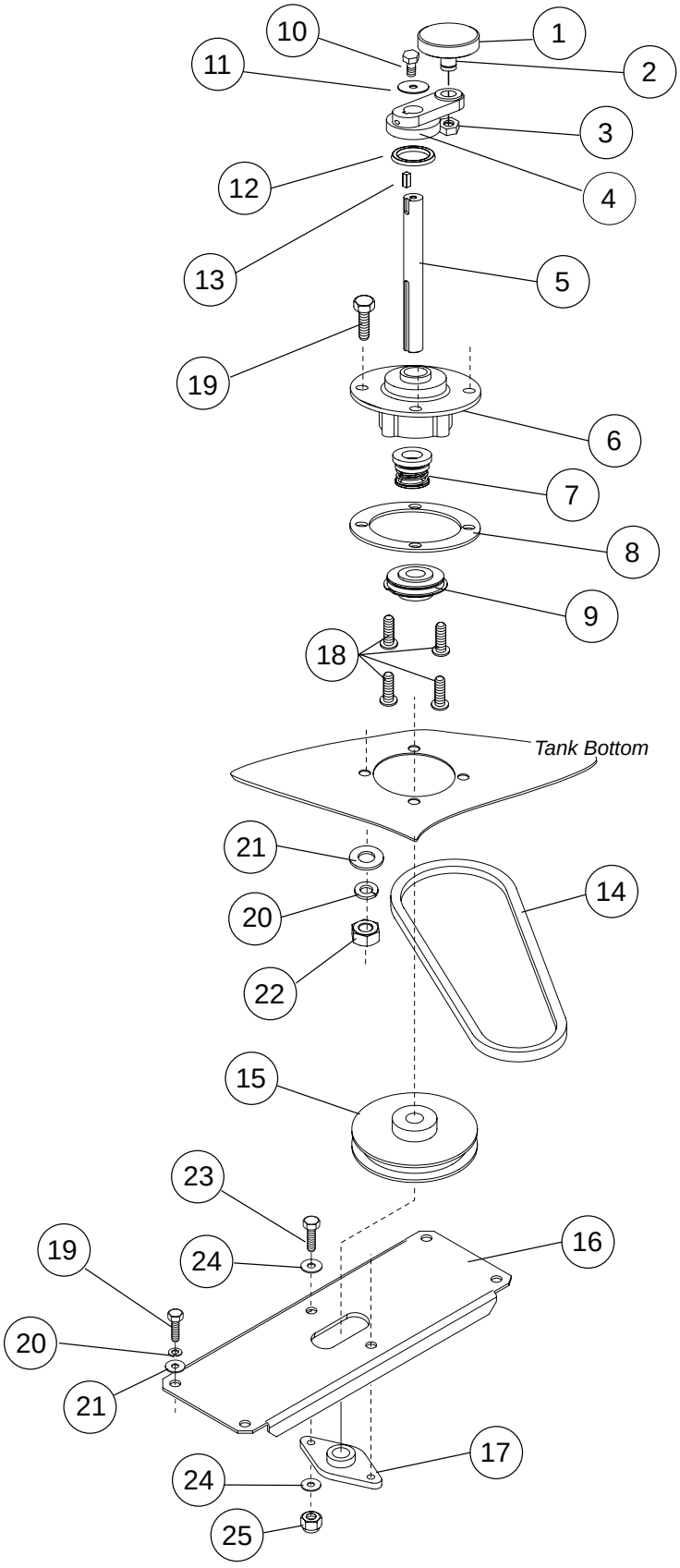
Item No.	Part No.	Description	Qty.
1	0509199	Drive Motor Switch	1
2	327918	Bracket, Motor Switch Mounting	1
3	**See Sheave and V-Belt Chart Below**		
4	327916	Plate, Drive Motor Mounting	1
5	327920	Plate, 44 Motor Assy Mounting	1
5	327917	Plate, 64 Motor Assy Mounting	1
6	327919	Bracket, Motor Spring Mounting	1
7	106482	Washer Lock 1/4 Split SST	4
8	102376	Washer, Flat 5/16 x 3/4 x .06 SST	2
9	113702	Spring 0.6OD x 0.095 Wire x 1.5 Lg	1
10	113704	Screw, 5/16 x 3-1/2 Hex Head SST	1
11	113700	Bushing 3/8 x 3/4 x 1/16 Thrust Bronze	3
12	113703	Bushing, 3/4 x 7/8 x 3/8 x 1-1/8 Flg	1
13	113701	Bushing 1/4 x 3/8 x 1/2 x 1/16 Flg Bronze	1
14	113732	Motor, Gear 1/6HP 3PH, MV	1
14	113679	Motor, Gear 1/6HP 1PH, MV Used on 1 and 3 PH machines prior to S/N RE4397	1
14	114598	Motor, Gear 1/6HP 3 PH, 575V	1
15	100734	Bolt 1/4-20 x 1/2 Hex Head SST	2
16	100736	Bolt 1/4-20 x 3/4 Hex Head	3
17	100734	Bolt 1/4-20 x 1/2 Hex Head SST	2
18	109009	Grip Nut, 5/16-18 w/nylon insert	1

Sheave and V-belt Chart

Model	Motor Sheave Part No.	Drive Sheave Part No.	V-Belt Drive Part No.
E44	103166: AK39 5/8 Bore	113892: AK59 5/8 Bore	100794: 4L 310
E44DR	103166: AK39 5/8 Bore	113892: AK59 5/8 Bore	100794: 4L 310
E44WS	113688: AK34 5/8 Bore	113995: AK89H 5/8 Bore	114002: 4L 380
E44DRWS	113688: AK34 5/8 Bore	114003: AK74 5/8 Bore	100799: 4L 350
E54DR	113896: AK54 5/8 Bore	113892: AK59 5/8 Bore	100797: 4L 340
E64	113689: AK46 5/8 Bore	113896: AK54 5/8 Bore	100797: 4L 340
E84	103170: AK49 5/8 Bore	108897:AK44 5/8 Bore	100794: 4L 310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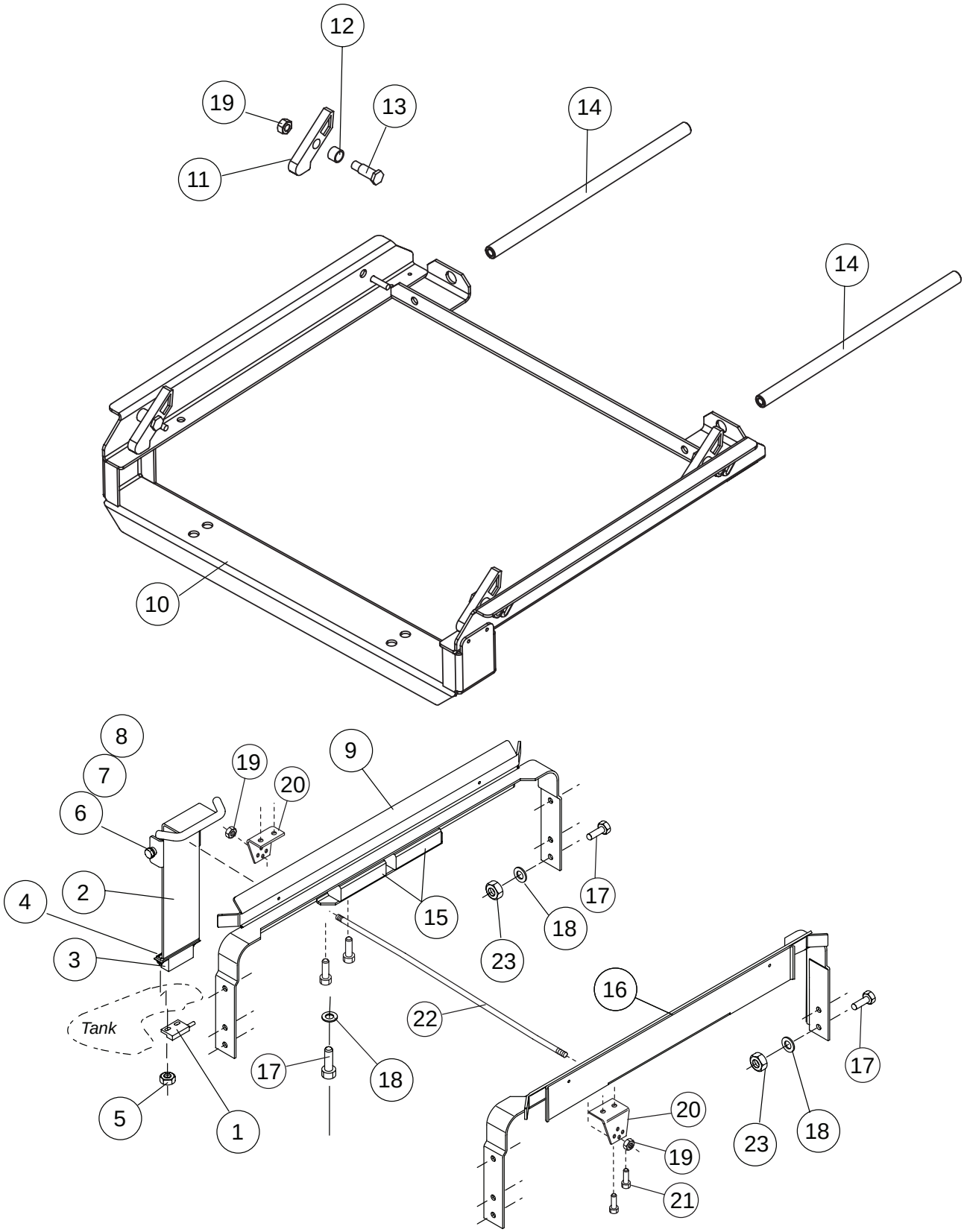
Item No.	Part No.	Description	Qty.
1	202381	Roller Crosshead	1
2	100868	Roller Stud Crosshead	1
3	107089	Nut Jam 1/2-13	1
4	206300	Crank, Rack Arm	1
5	206301	Shaft 5/8" O.D. x 8-3/8" LG.	1
6	206302	Housing, Bearing/Seal	1
7	102244	Seal 5/8”	1
8	206303	Gasket/Bearing Seal	1
9	100382	Bearing Jaf #EK104-10	1
10	100007	Screw, 10-32 x 3/8 Truss Head	1
11	104925	Washer 1/4 x 1 x 16 Gauge	1
12	103180	Wiper Ring	1
13	104916	Key 3/16 x 3/16 x 3/4 SST	1
14	**See Sheave and V-belt Chart on page 35.**		1
15	**See Sheave and V-belt Chart on page 35.**		
16	327924	Bracket, 44 Drive Bearing Mounting	1
17	113860	Bearing, Sealed 5/8 Bore	1
18	104923	Screw 1/4-20 x 3/8 Round Head	4
19	100739	Bolt 5/16-18 x 3/4 Hex Head SST	8
20	106013	Washer Lock 5/16 Split	8
21	102376	Washer, flat 5/16"	8
22	100154	Nut Plain 5/16-18 SST	8
23	100746	Bolt 3/8-16 x 1-1/4" Hex Head	2
24	104618	Washer 3/8 x 7/8 x 1/16 SST	2
25	109010	Grip Nut, 3/8" w/nylon insert	2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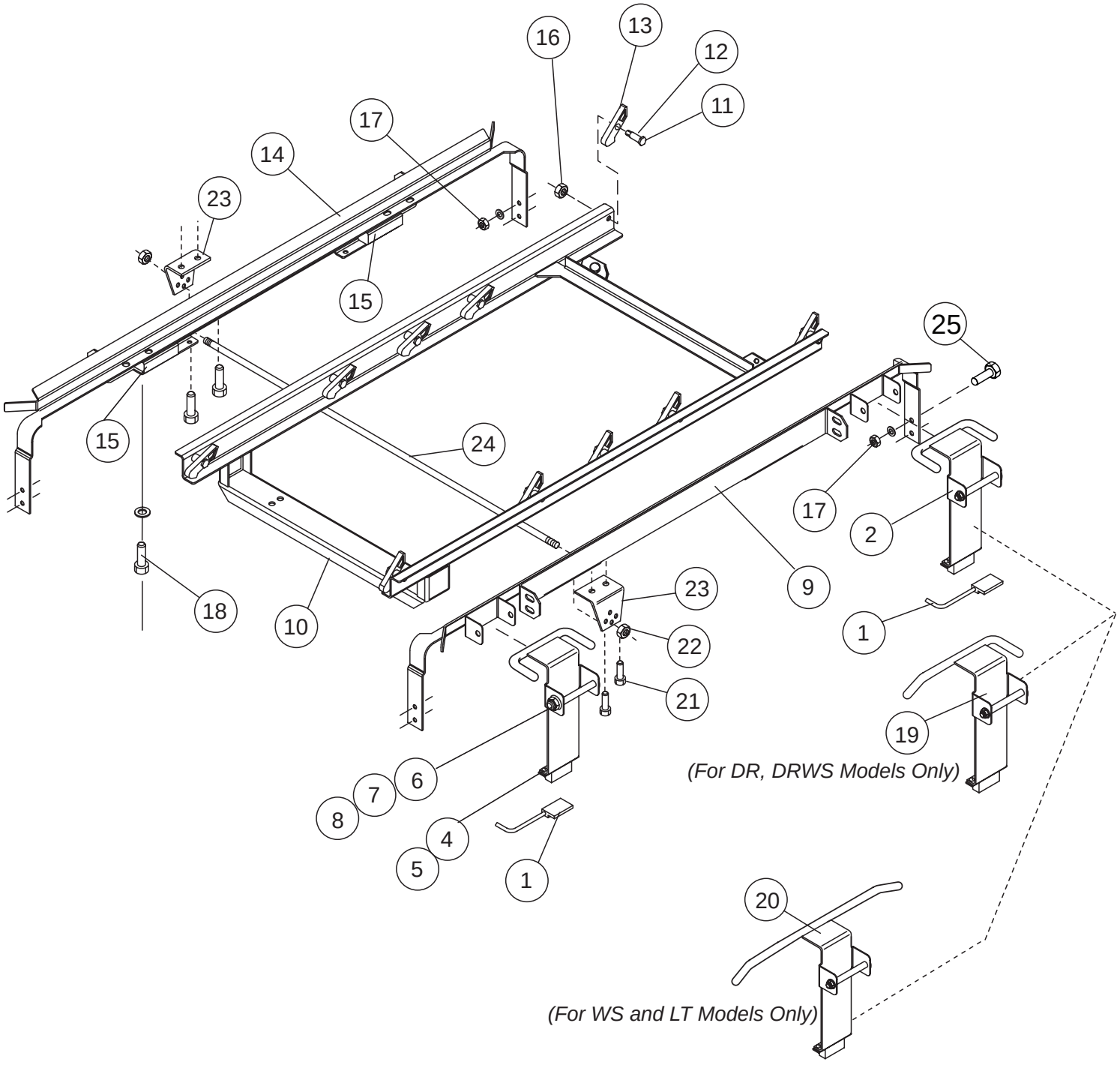
Item No.	Part No.	Description	Qty.
1	113719	Switch, Door Safety	1
2	328045	Bracket, E PW IdlePump	1
3	113937	Magnet, SS	1
4	100764	Screw, 6-32 x 1/2 Round Head SST	2
5	108954	Nut, Grip 6-32 Hex Head W/Nylon Insert	2
6	106482	Washer Lock 1/4 Split	2
7	327833	Pin Idle Switch lever	1
8	100736	Screw, 1/4-20 x 3/4" Hex Head	2
9	328041	Track, 22” PW Rear	1
10	328043	Cradle, 22” PW	1
11	204513	Pawl, Cradle	4
12	206345	Spacer, Rack Cradle Pawl	4
13	113692	Bolt, Shoulder, 3/8 x 3/4 x 5/16-18 x 3/8" SST	4
14	333155	Cradle, Drive Rod Single Tank, 22" PW	2
14	333155	Cradle Drive RodTwo Tank 22" PW or Single Tank E 36" PW	2
15	206343	Bearing, E Cradle Support	4
16	327955	Track, 22” PW Front	1
17	100735	Bolt 1/4-20 x 5/8" Hex Head SST	8
18	112318	Washer, Flat 1/4-20	8
19	100142	Nut, Grip 5/16-18	6
20	331988	Bracket, Lower Washarm Support	2
21	100734	Bolt, Hex. Hd. 1/4-20 x 1/2"	6
22	206920	Rod, Lower Washarm Support, Threaded	1
23	100141	Nut, Grip 1/4-20	8
24	106482	Washer Lock 1/4-20 Split	2
----	414334	Cradle Assembly, Complete, PW22"	
----	414438	Cradle Assembly Complete, PW36"	
----	900897	Kit, Idle Pump Assy.	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(For DR, DRWS Models Only)
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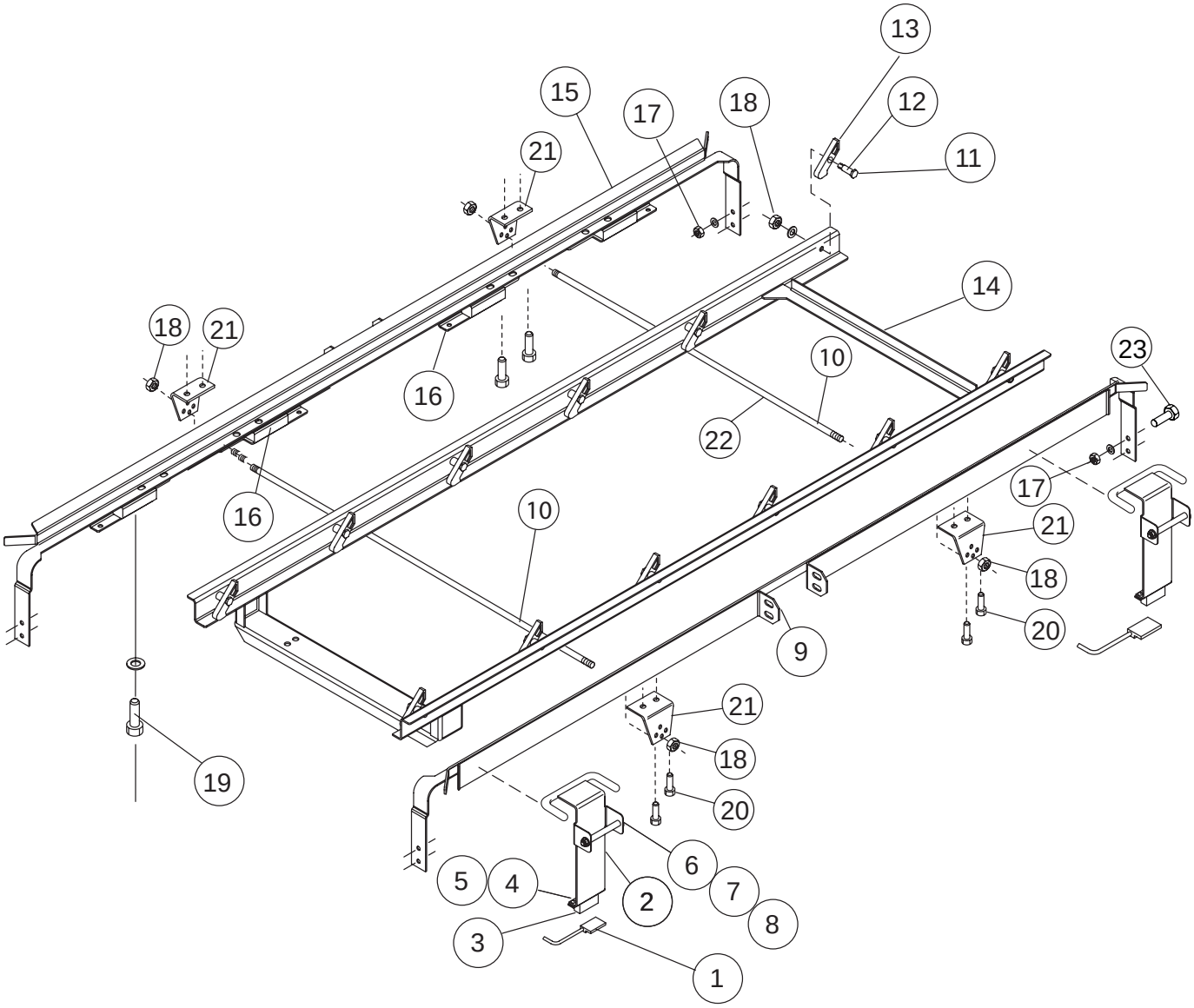
(For WS and LT Models Only)

Item No.	Part No.	Description	Qty.
1	113719	Switch, Reed Aleph	1
2	414344	Switch, Idle Assembly (Includes Items 3-8)*(Prior to 8/30/08)*	1
3	113937	Magnet, SS	1
4	100764	Screw, 6-32 x 1/2 Round Head SST	2
5	108954	Nut, Grip 6-32 Hex Head W/Nylon Insert	2
6	106482	Washer Lock 1/4 Split	2
7	327833	Pin Idle Pump Switch	1
8	100736	Screw, 1/4-20 x 3/4 Hex Head	2
9	414370	Track, E44 Front	1
10	414307	Cradle, E44	1
11	113692	Screw, 3/8 x .875 x 5/15-18	8
12	206345	Bushing, Rack Cradle Pawl	8
13	204513	Pawl, NG Cradle	8
14	414357	Track, E44 Rear	1
15	206343	Bearing, Rack Cradle Slide	4
16	100412	Nut, Grip 5/16-18	1
17	100141	Nut, Grip 1/4-20	4
18	100736	Bolt 1/4-20 x 3/4 Hex Head SST	2
---	106482	Washer Lock 1/4-20 Split	2
19	329295	Switch, Idle Weldment *(After 6-30/08) (For DR, DRWS Models)*	1
20	329783	Switch, Idle Assy. Weldment *(After 6-30/08) (For WS, LT Models)*	1
21	100734	Bolt, Hex. Hd. 1/4-20 x 1/2"	6
22	100142	Nut, Grip 5/16-18	2
23	331988	Bracket Lower Washarm Support	2
24	206920	Rod, Support	1
25	100735	Bolt 1/4-20 x 5/8" Hex Hd., SST	8
---	414377	Cradle, E-44 Complete (Includes Items 10-13 and 16)	1
---	329486	Track, 26" Front Feed Assy.	
---	900897	Kit. Idle Pump Assy.	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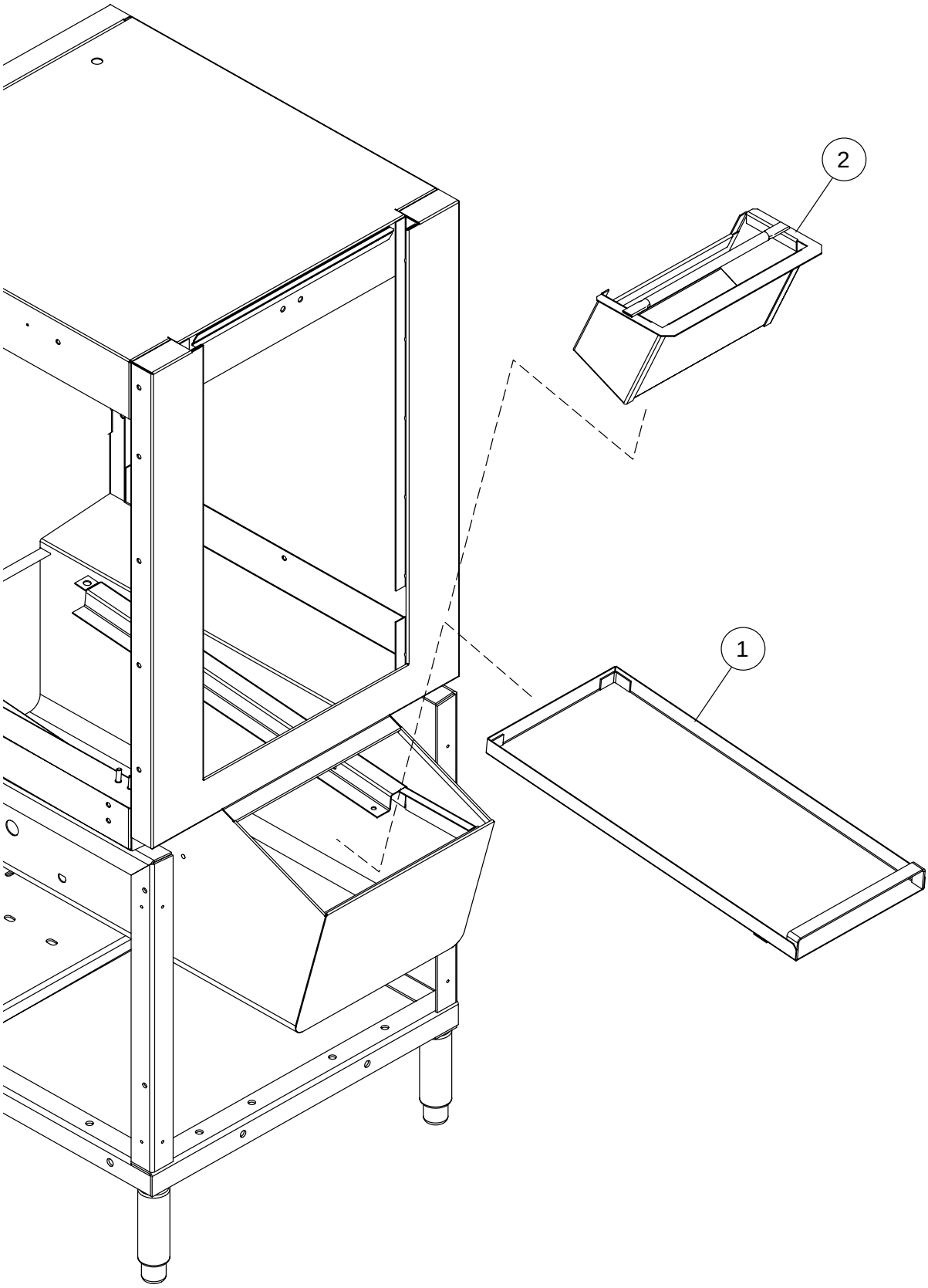
Item No.	Part No.	Description	Qty.
1	113719	Switch, Reed Aleph	1
2	414344	Switch, Idle Assembly (Includes Items 3-8)	1
3	113937	Magnet, SS	1
4	100764	Screw, 6-32 x 1/2 Round Head SST	2
5	108954	Nut, Grip 6-32 Hex Head W/Nylon Insert	2
6	106482	Washer Lock 1/4 Split	2
7	327833	Pin Idle Pump Switch	1
8	100736	Screw, 1/4-20 x 3/4 Hex Head	2
9	414370	Track, 64 Front LR 328981 RL	1
10	415667	Cradle, 64 Assembly Front L-R 328981 RL	1
11	113692	Bolt Shoulder, 3/8 X 3/4 X 5-16 X 18 SST	12
12	206345	Bushing, Rack Cradle Pawl	12
13	204513	Pawl, NG Cradle	12
14	414308	Cradle, 64	1
15	414358	Track, 64 Rear	1
16	206343	Bearing, Rack Cradle Slide	8
17	100141	Nut, Grip 1/4-20	4
18	100142	Nut, Grip 5/16-18	3
19	100736	Bolt 1/4-20 x 3/4 Hex Head SST	2
---	106482	Washer Lock 1/4-20 Split	2
20	100734	Bolt, Hex. Hd. 1/4-20 x 1/2"	8
21	331988	Bracket, Lower Washarm Support	4
22	206920	Rod, Lower Washarm Support	2
23	100735	Bolt 1/4-20 x 5/8" Hex Hd., SST	8
---	414378	Cradle Assy. Complete E-64	
----	415839	Cradle Assy. Complete E84	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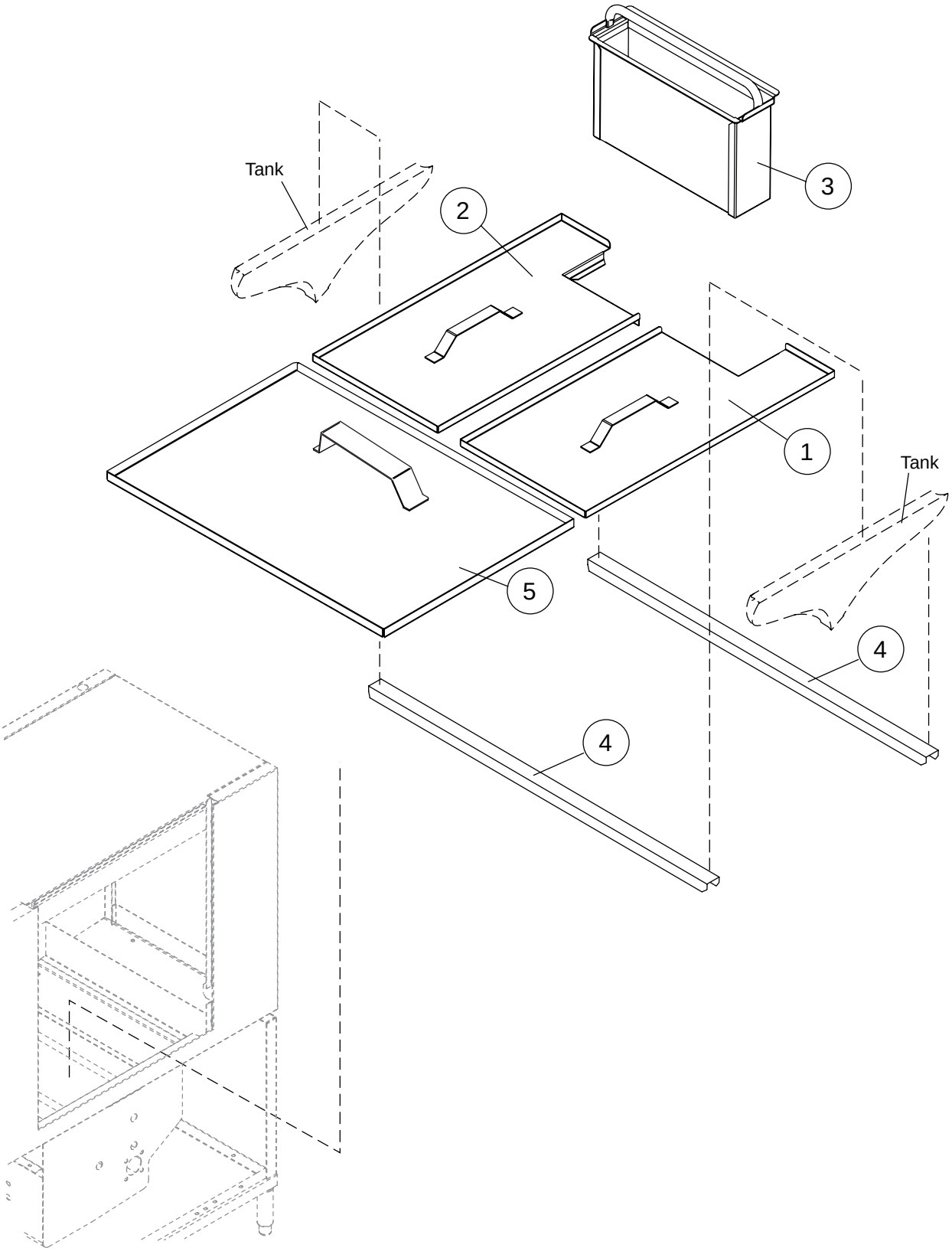
Item No.	Part No.	Description	Qty.
1	328958	Screen Assy	1
2	328959	Refuse Basket	1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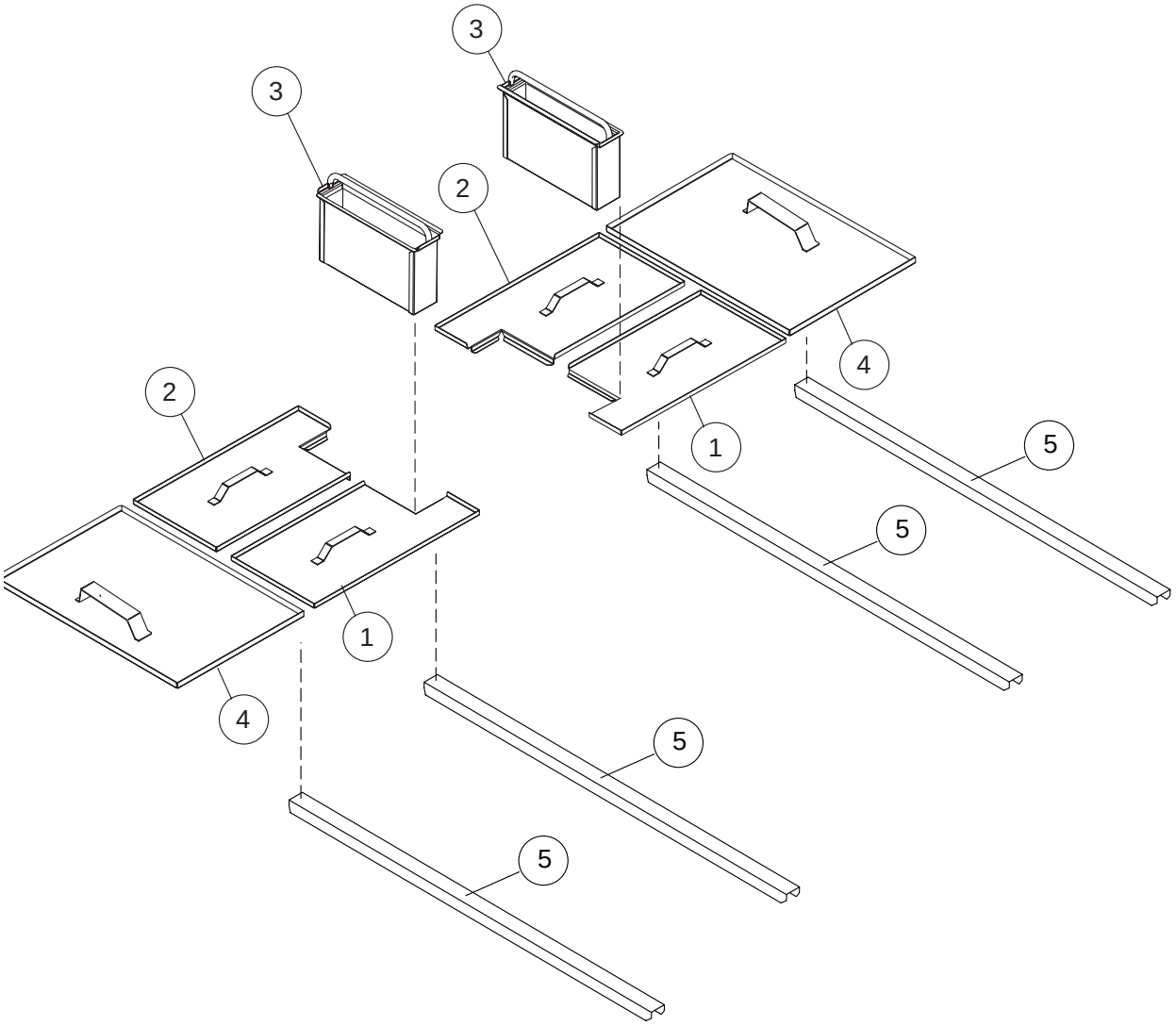
Item No.	Part No.	Description	Qty.
1	414328	Screen, E-44 L-R Front	1
2	414329	Screen, E-44 L-R Rear	1
3	414300	Basket, Rack	1
4	331922	Support, Screen	2
5	328653	Screen, Outboard, (E54DR)	1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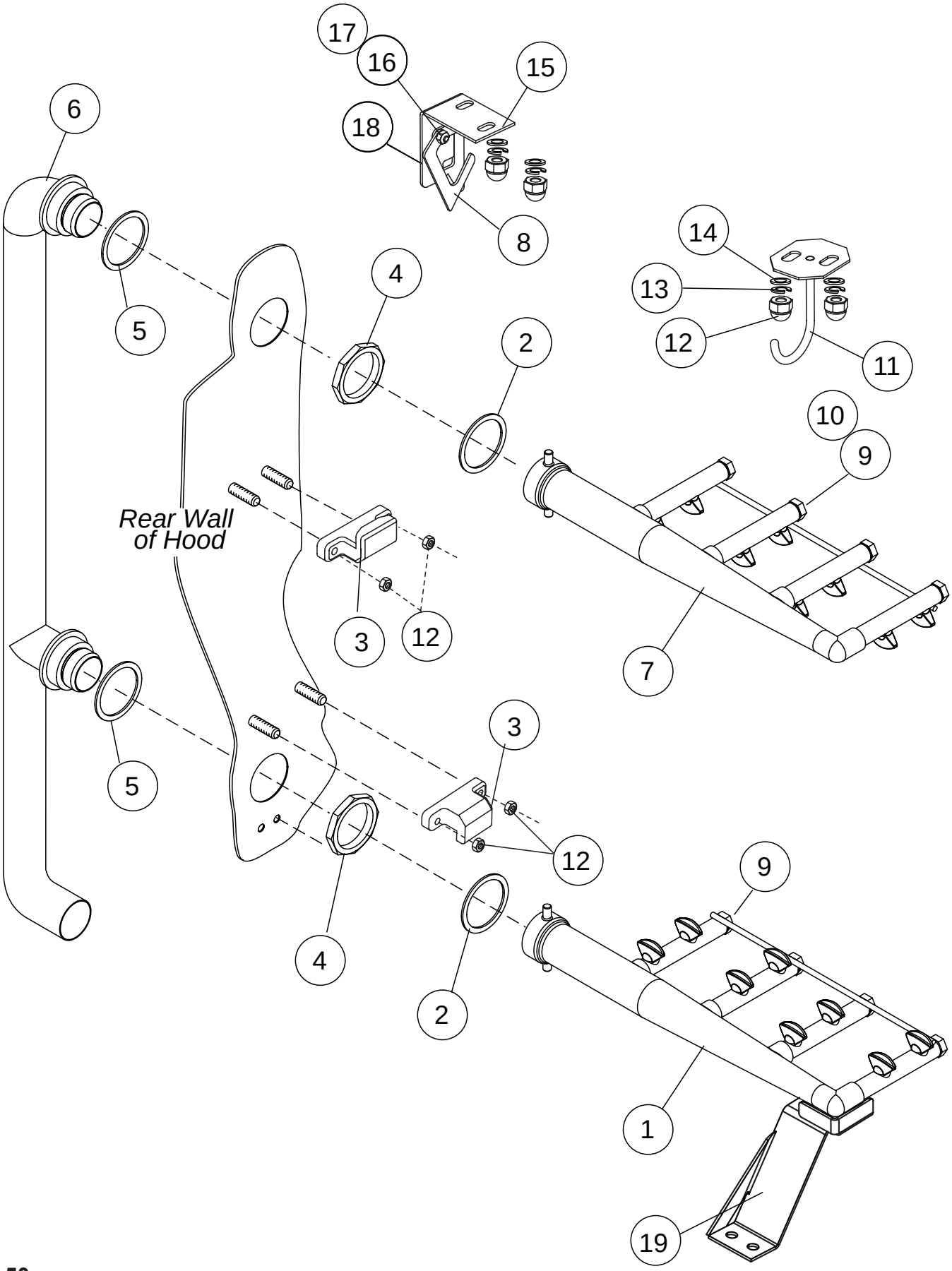
Item No.	Part No.	Description	Qty.
1	414328	Screen, E-44 L-R Front	1
2	414329	Screen, E-44 L-R Rear	1
3	414300	Basket, Rack	1
4	331922	Support, Screen	4
5	328653	Screen, Outboard, (E-84 Only)	1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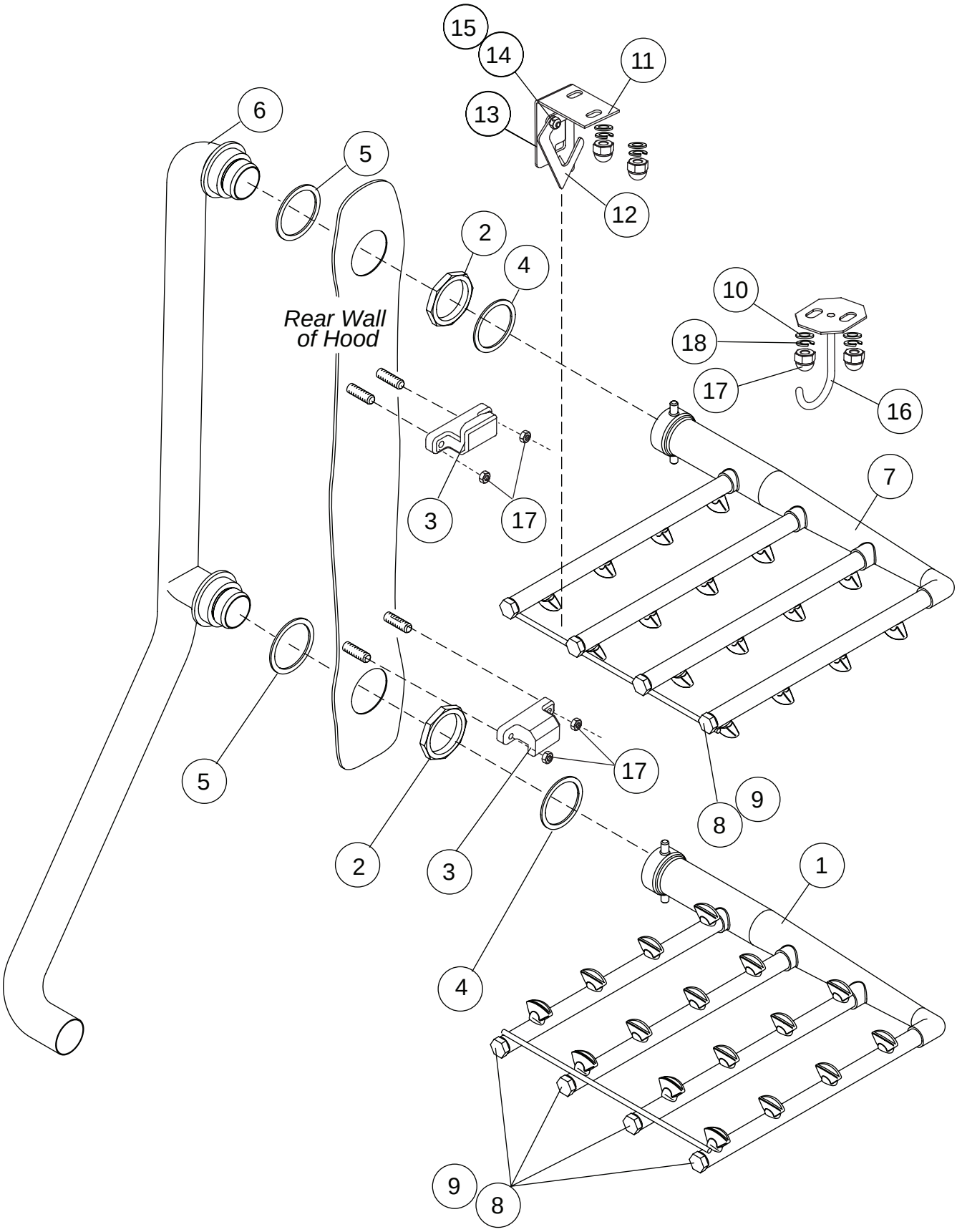
19

Item No.	Part No.	Description	Qty.
1	414569	Wash Manifold Assembly 6” Lower	1
2	113723	O-Ring,1.75 ID	1
3	113738	Block, Washarm Retaining	4
4	113540	Locknut 2NPT SST	2
5	113542	Gasket, Flat EDPM 2-3/8 ID	2
6	328028	Standpipe, 22” PW	1
7	414568	Wash Manifold Assy 6” Upper	1
8	328998	Bracket, Upper Safety	1
9	113555	Plug, Wash Arm E-Series (Qty per arm)	4
10	113716	O-ring	4
11	328634	Support, Upper Wash	1
12	106014	Nut, Acorn 1/4-20 SST	8
13	106482	Washer, Lock 1/4" Split SST	8
14	106026	Washer, Flat 1/4" SST	8
15	329000-1	Bracket	1
16	106141	Grip Nut, 1/4" SST	2
17	100735	Bolt, Hex Hd. 1/4-20 SST	2
18	329001	Support, Upper Wash	1
19	328253	Bracket Support	1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Rear Wall
of Hood
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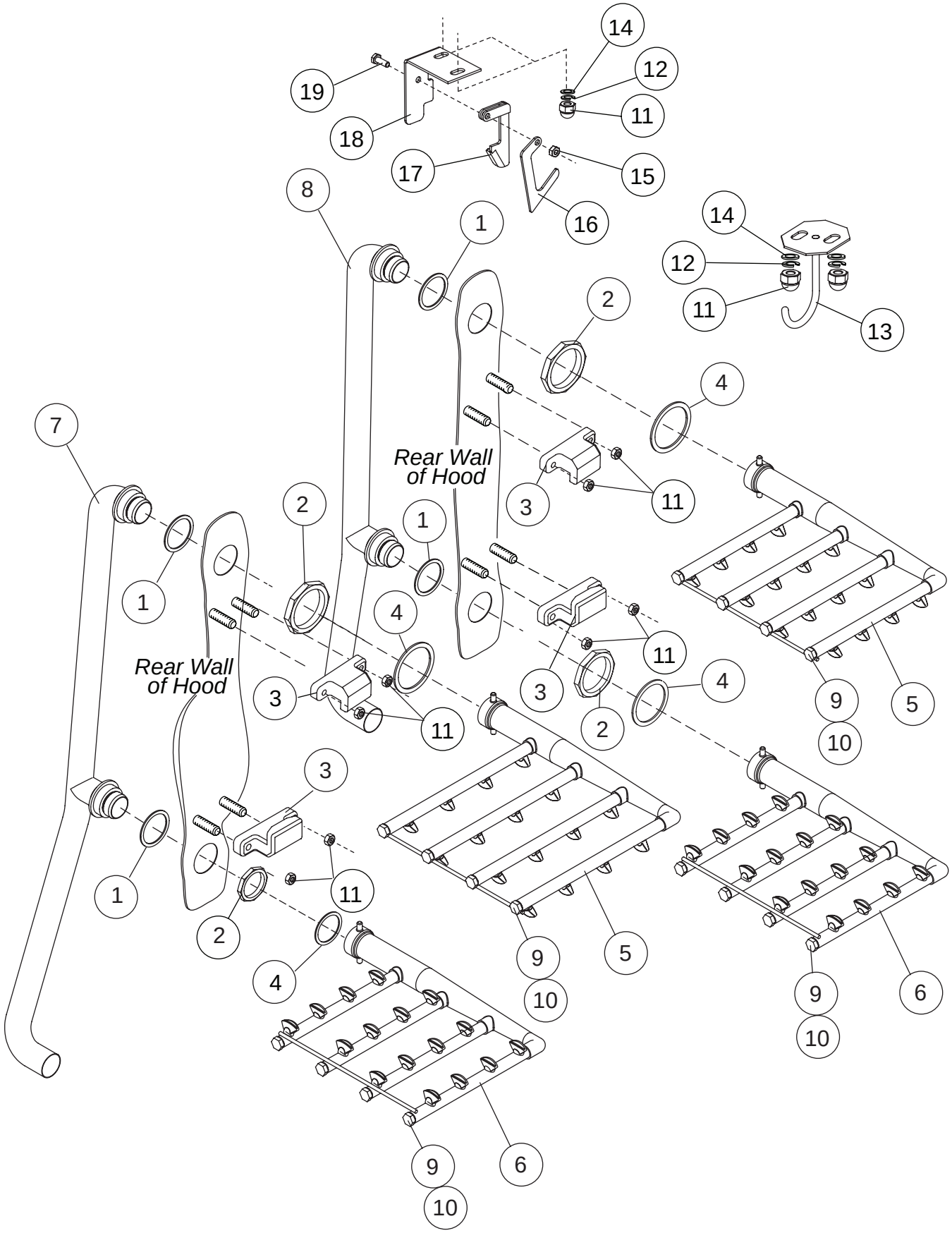
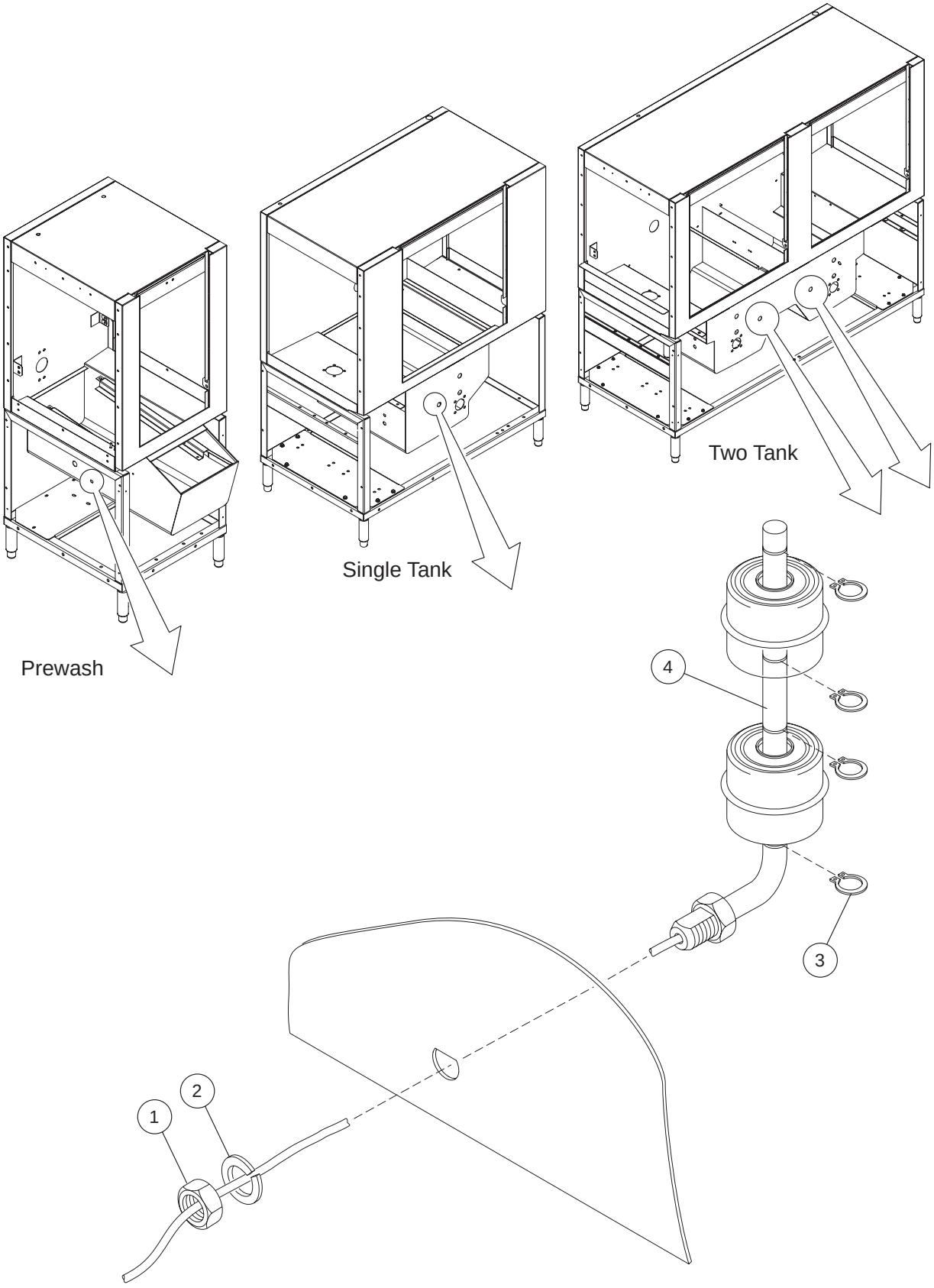
Item No.	Part No.	Description	Qty.
1	414567	Wash Manifold Assembly 10” 15° Lower (L-R)	1
---	414566	Wash Manifold Assembly 10” 15° Lower (R-L)	1
2	113542	Gasket, Flat EDPM 2-3/8 ID	4
3	113738	Block, Washarm Retaining	2
4	113723	O-ring	4
5	113540	Locknut 2NPT SST	4
6	327993	Standpipe, R-L 44	1
---	414317	Standpipe, L-R 44	1
7	414289	Wash Manifold Assy 14” Straight Upper (L-R)	1
---	414288	Wash Manifold Assy 14” Straight Upper (R-L)	1
8	113555	Plug, Wash Arm E-Series (Qty per arm)	4
9	113716	O-ring	4
10	329000-2	Bracket	1
11	328998	Bracket, Upper Safety Catch	1
12	329001	Bracket, Upper Wash Support	1
13	100141	Grip Nut, 1/4-20 SST	10
14	100735	Bolt, Hex Hd. 1/4-20 x 5/8" SST	10
15	328034	Support, Upper Wash	1
16	106014	Nut, Acorn 1/4" SST	8
17	106482	Washer, Lock 1/4" Split SST	8
18	106026	Washer, Flat 1/4" SST	2


Rear Wall of Hood
Rear Wall of Hood

Item No.	Part No.	Description	Qty.
1	113542	Gasket, Flat EDPM 2-3/8 ID	4
2	113540	Locknut 2NPT SST	4
3	113738	Block, Washarm Retaining	2
4	113723	O-ring,1.75 ID	2
5	414289	Wash Manifold Assembly 14” Straight Upper (L-R)	2
---	414288	Wash Manifold Assembly 14” Straight Upper (R-L)	
6	414291	Wash Manifold Assembly 10” 15° Lower (L-R)	2
---	414290	Wash Manifold Assembly 10” 15° Lower (R-L)	2
7	414318	Standpipe 64 L-R Wash	1
---	328443	Standpipe 64 R-L Wash	1
8	414319	Standpipe 64 L-R Rinse	1
---	328445	Standpipe 64 R-L Rinse	1
9	113555	Plug, Wash Arm E-Series (Qty per arm)	4
10	113716	O-ring	4
11	106014	Nut, Acorn 1/4" SST	10
12	106482	Washer, 1/4" Split SST	8
13	328034	Support, Upper Washarm	2
14	106026	Washer, Flat 1/4" SST	8
15	100141	Grip Nut, 1/4" SST	4
16	328998	Bracket, Upper Safety	2
17	329000-1	Latch, E Upper Washarm Weldment (L-R Operation)	2
---	329000-2	Latch, E Upper Washarm Weldment (R-L Operation)	2
18	329001	Bracket, Upper Washarm Support	2
19	100735	Bolt, Hex Hd. 1/4-20 x 5/8" SST	4


Two Tank
Single Tank
Prewash
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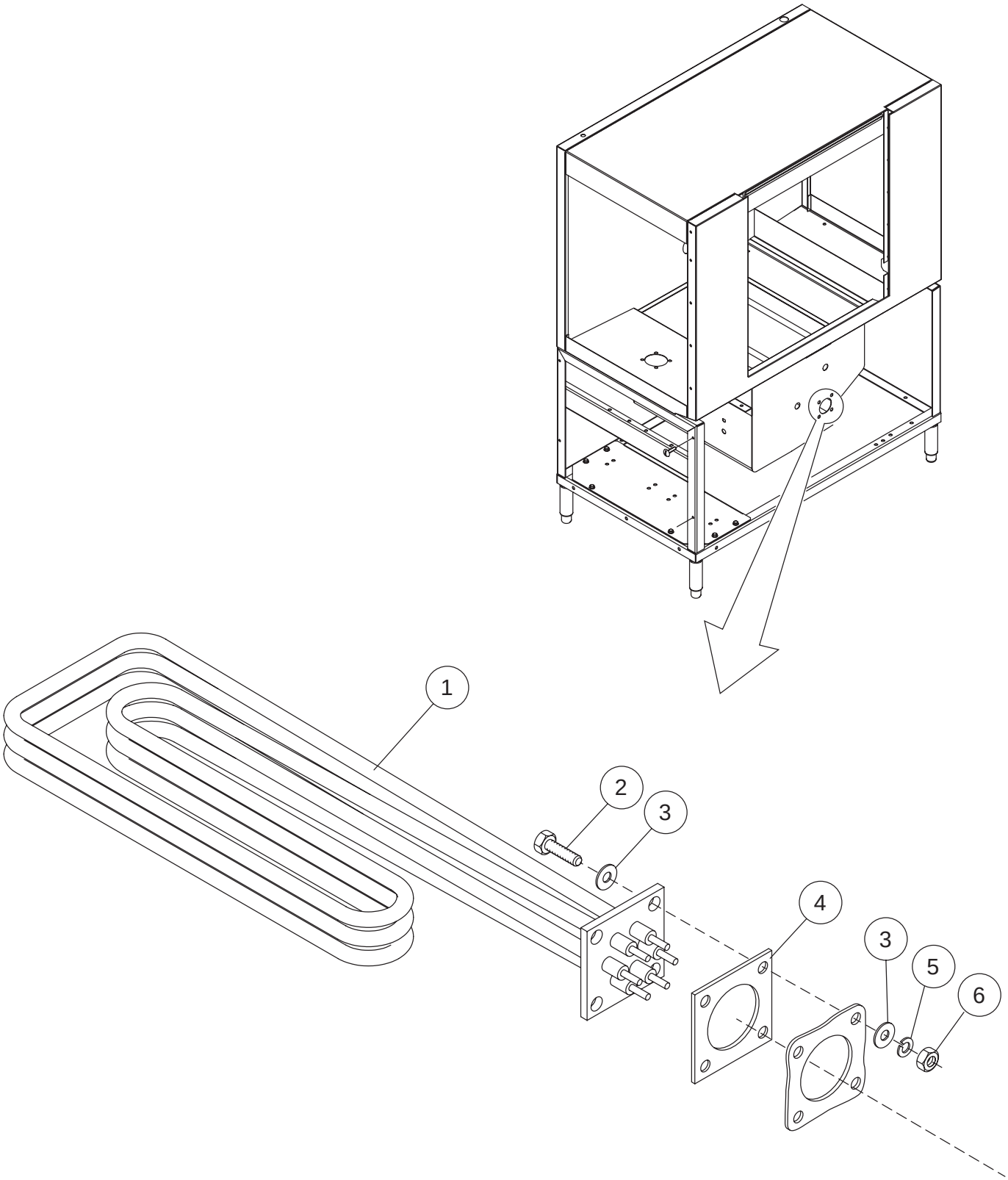
Item No.	Part No.	Description	Qty.
1	104584	Nut, Plain 1/2-13	
1			
2	107589	Washer, Flat 1/2”	1
3	111151	C-Clip	A/R
4	110854	Float Switch, Dual Prewash	1
--	113291	Float Switch, Dual Wash/Rinse E-44	1
--	113291	Float Switch, Dual Wash/Rinse E-64	2
--	110750	Gasket, Float Switch (Not Shown)	A/R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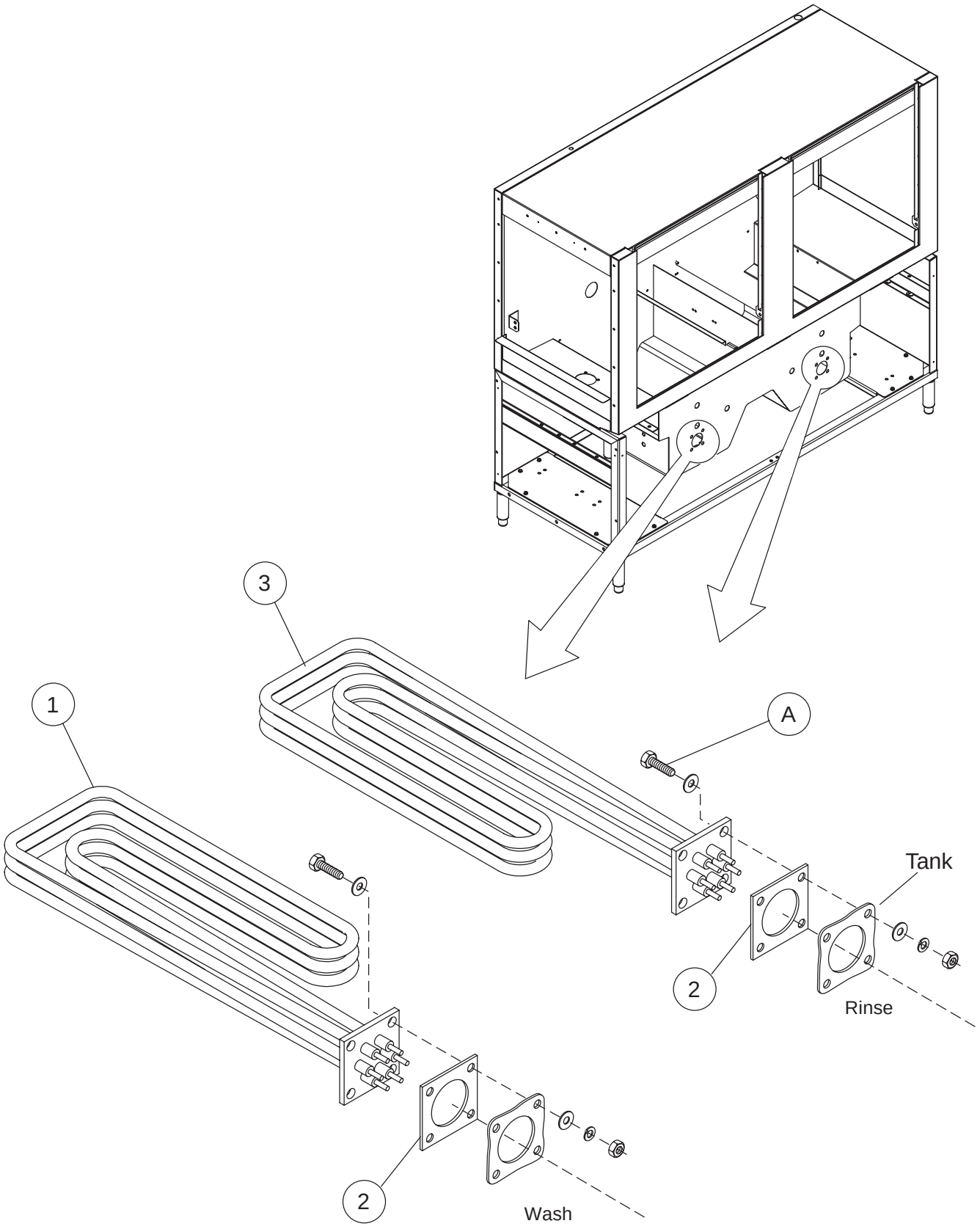
Item No.	Part No.	Description	Qty.
1	113516	Heater 15/18KW 208V,380V	1
	113517	Heater 15/16.3KW 230/240V, 400/415V	1
	113518	Heater 15/16.3KW 460/480V	1
	113519	Heater 15KW 575V	1
2	100153	Bolt, 3/18-16 x 1 Hex Head	4
3	104618	Washer 3/8 x 7/8 x 1/16 SST	8
4	108345	Gasket 3 x 3 x 1/8” 2” Hole	1
5	106407	Washer Lock 3/8 Split	4
6	100140	Nut Plain 3/8-16	4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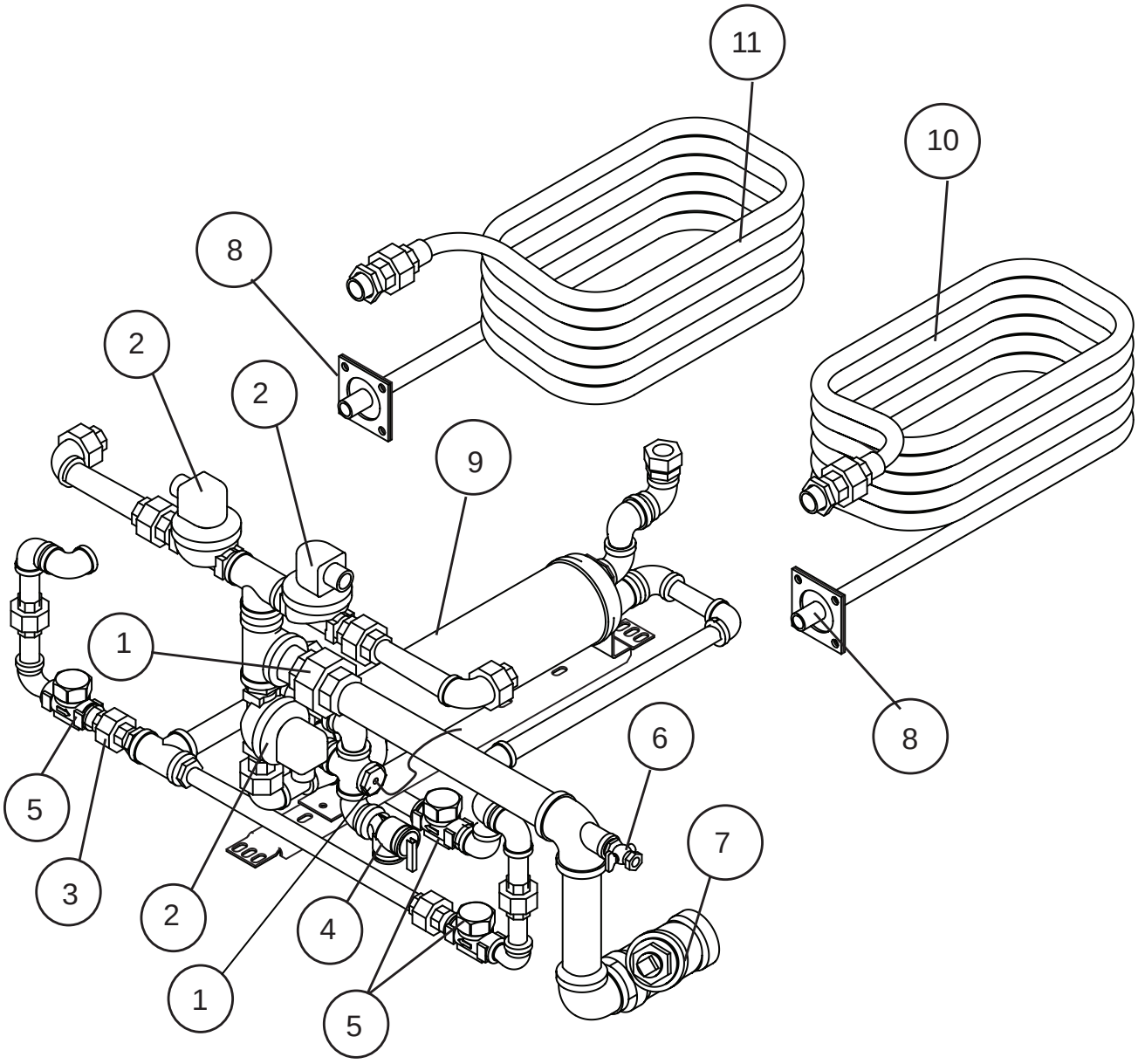
A
Tank
2
Rinse
2
Wash

Item No.	Part No.	Description	Qty.
1	113516	Heater 15/18KW 200/220V (Wash)	1
	113517	Heater 15/16.3KW 230/240V(Wash)	1
	113518	Heater 15/16.3KW 460/480V (Wash)	1
	113519	Heater 15KW 575V (Wash)	1
2	108345	Gasket 3 x 3 x 1/8” 2” Hole	1
3	113804	Heater 10/12.1 KW 200/220V (Rinse)	1
	118842	Heater 10/11KW 230/240V (Rinse)	1
	113883	Heater 10/11KW 460/480V (Rinse)	1
	113884	Heater 10/11KW 575V (Rinse)	1
A		**Element Fasteners (Qty Per Element)**	
	100153	Bolt, 3/18-16 x 1 Hex Head	4
	104618	Washer 3/8 x 7/8 x 1/16 SST	8
	106407	Washer Lock 3/8 Split	4
	100140	Nut Plain 3/8-16	4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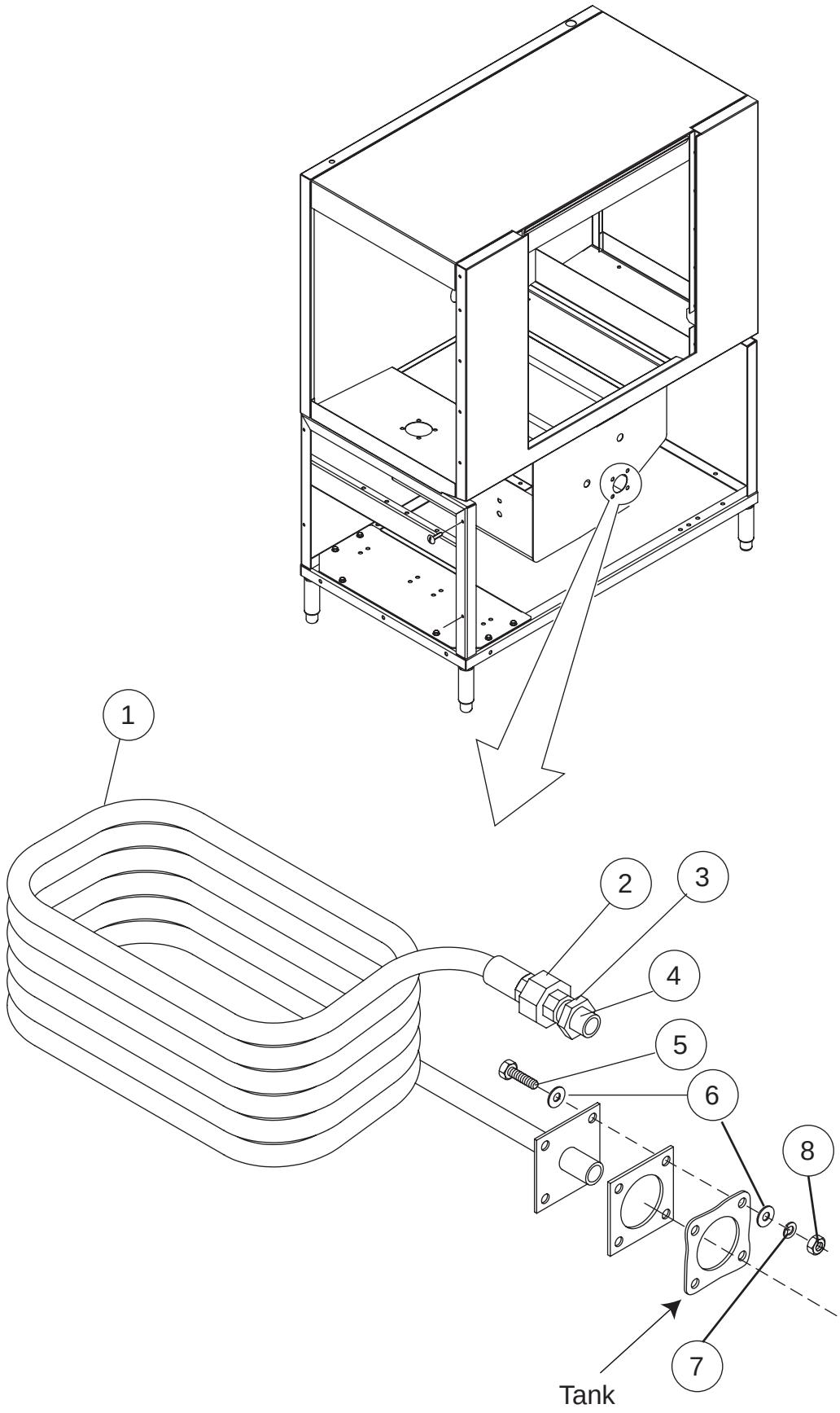
Item No.	Part No.	Description	Qty.
1	109069	Thermostat, Control	1
2	109887	Valve, 3/4" Solenoid 120VAC	3
---	109903	Kit, Repair Solenoid Valve	A/R
---	108516	Coil, Replacement 120VAC	A/R
3	105782	Union 1/2 NPT BI	4
4	104649	Relief, Valve	1
5	111380	Trap, Steam I/2"	3
6	100123	Cock, Gauge 1/4"	1
7	100263	Strainer, Line 1-1/4" BI	1
8	108345	Gasket	2
9	110189	Booster, K2 Spirec	1
10	327907	Coil, Steam R-L	1
11	327908	Coil, Steam L-R	1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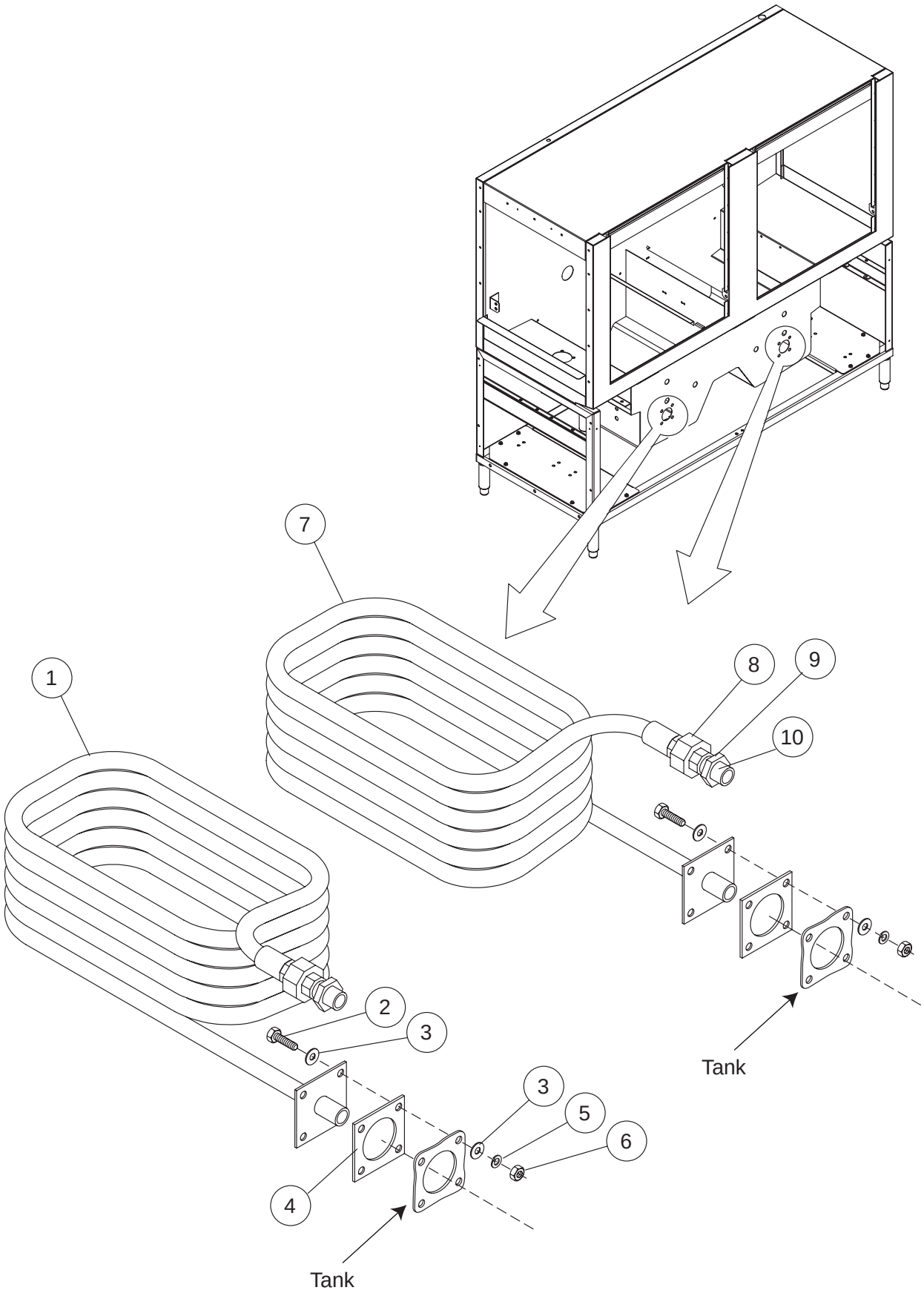
Tank

Item No.	Part No.	Description	Qty.
1	327908	Coil, Steam RH (Shown)	1
1	327907	Coil, Steam LH	1
2	102554	Union 3/4 SST	1
3	100548	Locknut, 3/4NPT SST	1
4	113918	Nipple, Rtoe 3/4 x 1-3/4	1
5	100740	Bolt 5/16-18 x 1 Hex Head	4
6	102376	Washer 5/16 X 3/4 x 1/16	8
7	108345	Gasket 3 x 3 1/8” 2IN Hole	1
8	106013	Washer Lock 5/16 Split	4
9	100154	Nut Plain 5/16-18	4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Tank
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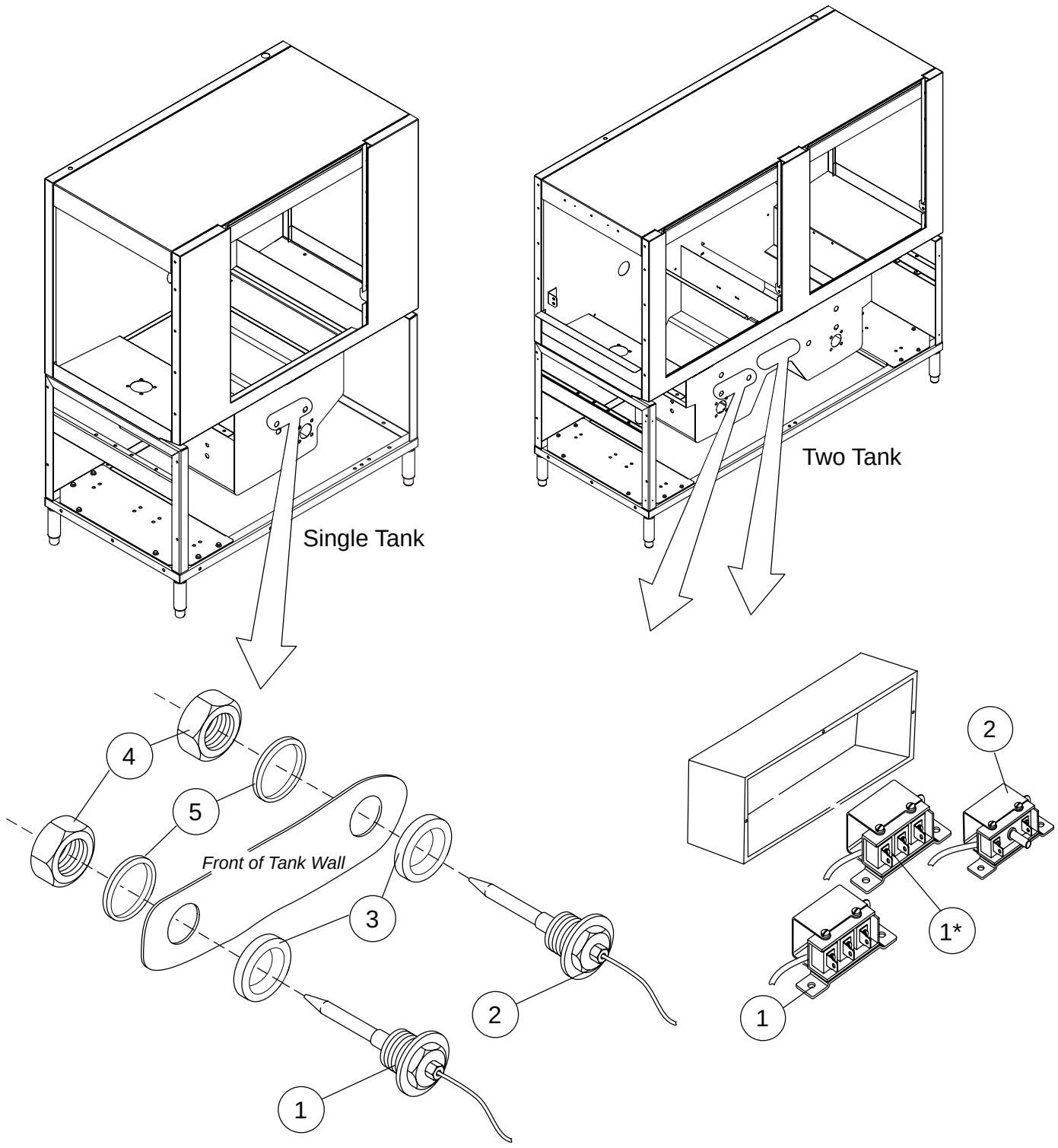
Tank

Item No.	Part No.	Description	Qty.
1	327907	Coil, Steam LH	1
2	100740	Bolt 5/16-18 x 1 Hex Head	8
3	102376	Washer 5/16 X 3/4 x 1/16	16
4	108345	Gasket 3 x 3 1/8” 2IN Hole	2
5	106013	Washer Lock 5/16 Split	8
6	100154	Nut Plain 5/16-18	8
7	327908	Coil, Steam RH	1
8	102554	Union 3/4 SST	2
9	100548	Locknut, 3/4NPT SST	2
10	113918	Nipple, Rtoe 3/4 x 1-3/4	2


Single Tank
Two Tank
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Front of Tank Wall
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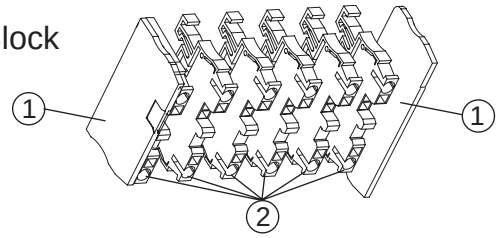
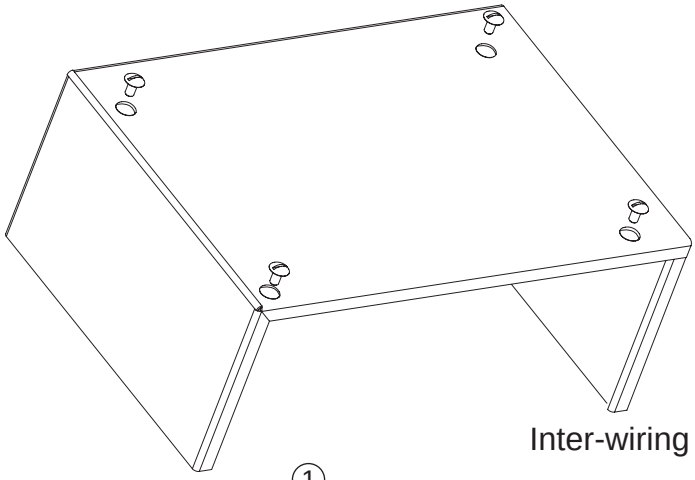
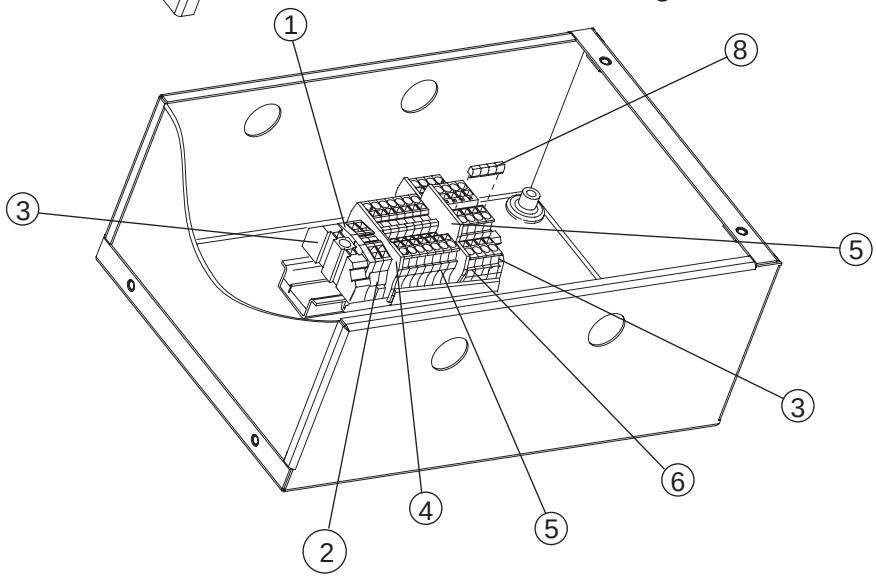
Item No.	Part No.	Description	Qty.
1	109069	Thermostat w/capillary - Single Tank	1
--	109069	Thermostat w/capillary -Two Tank	2
1*	109069	Thermostat w/capillary -DR Models Only	
2	110561	Thermostat, Fixed Hi Limit - Single Tank	1
--	110561	Thermostat, Fixed Hi Limit -Two Tank	2
3	201041	Washer 7/8 ID x 1/8 Thk - Single Tank	2
--	201041	Washer 7/8 ID x 1/8 Thk - Two Tank	4
4	109034	Gasket. Plug - Single Tank	2
--	109034	Gasket. Plug - Two Tank	4
5	100547	Locknut 1-1/2 NPT SST - Single Tank	2
	100547	Locknut 1-1/2 NPT SST - Two Tank	4

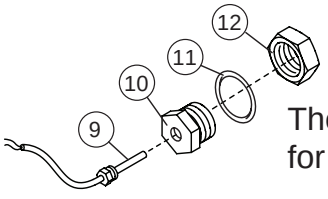
Thermistor Connection Block





Inter-wiring Connection Block

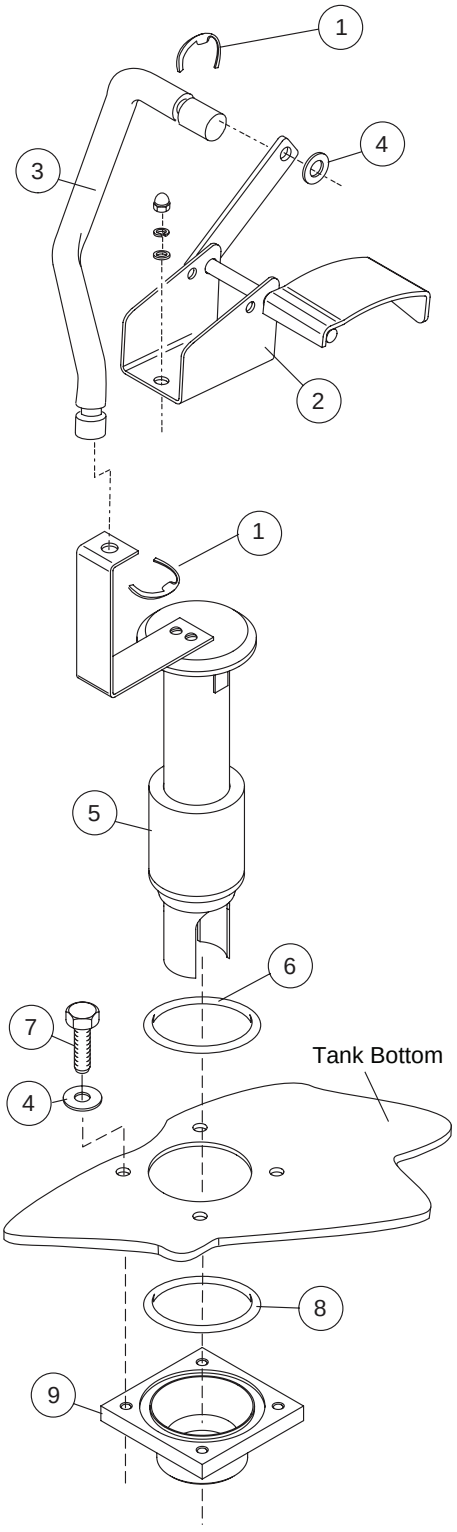




Thermistor Assembly
for Wash Tanks

NOTE: Components and Quantities vary per Machine.

Item No.	Part No.	Description	Qty.
1	114521	End Cover, Single Terminal, D-MZB	A/R
2	114520	Terminal, Single MZB, 1.5 NS35	A/R
3	114519	End Block, E/NS 35 N	2
4	114518	End Cover, Double Terminal STTB 2.5,	A/R
4	114516	End Cover, Single Terminal D-ST 2.5	A/R
5	114515	Terminal, Single, Ground ST 2.5 (Green)	A/R
6	114517	Terminal , Double STTB 2.5	A/R
7	114512	Terminal, Single ST 2.5 (Gray)	A/R
8	114522	Bridge, 10-Pole FPS 10-5 (Cut to Fit)	1
9	114435	Thermistor, 10KΩ, 36" Lead	1
10	0512299	Adapter, Thermistor	1
11	0501836	O-ring	1
12	201029	Locknut 1/2" NPT NP	1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Tank Bottom
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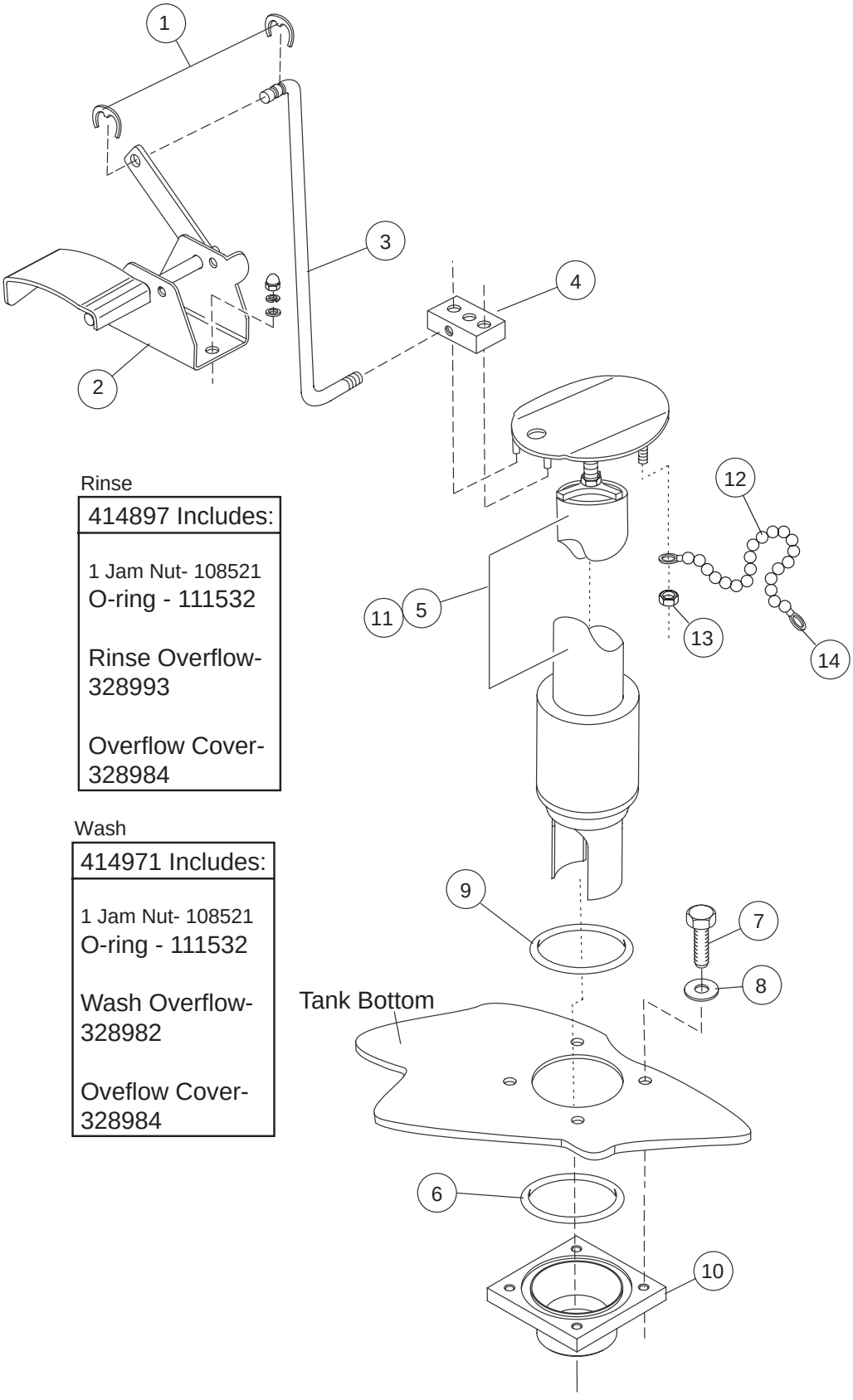
Item No.	Part No.	Description	Qty.
1	108875	Ring, Retaining	2
2	328824	Lever Drain Lift	1
3	206419	Rod, Overflow Lift 22"PW	1
4	106026	Washer 1/4 x 5/8 x 1/6 SST	5
5	328430	Overflow PW Mtd	1
6	111532	O-ring, Overflow	1
7	100735	Bolt 1/4-20 x 5/8 Hex Head	4
8	112257	O-ring, drain	1
9	111034	Drain , Flange Cast/Mach SST	1



Rinse

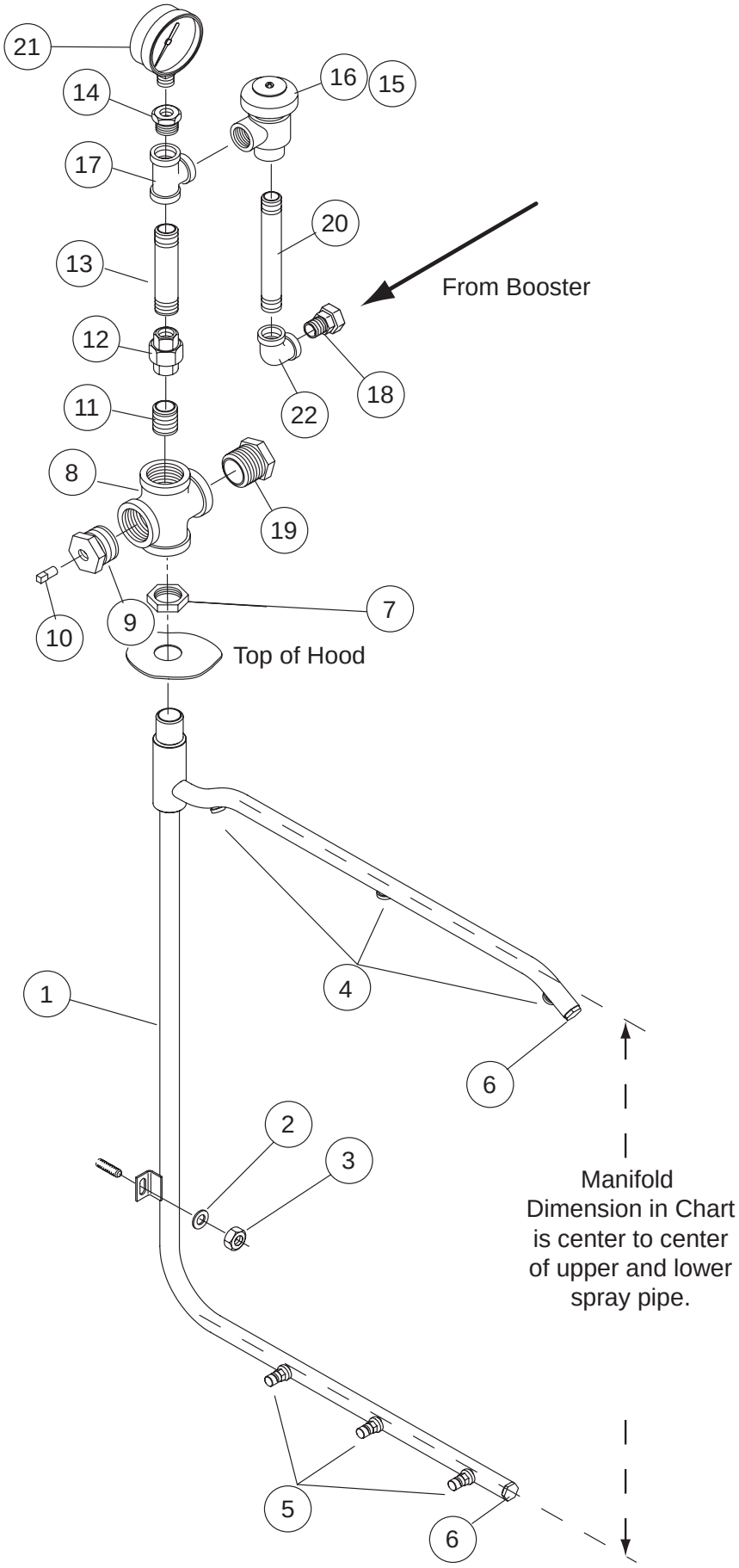
414897 Includes:
1 Jam Nut- 108521 O-ring - 111532 Rinse Overflow-328993 Overflow Cover-328984

Wash

414971 Includes:
1 Jam Nut- 108521 O-ring - 111532 Wash Overflow-328982 Oveflow Cover-328984

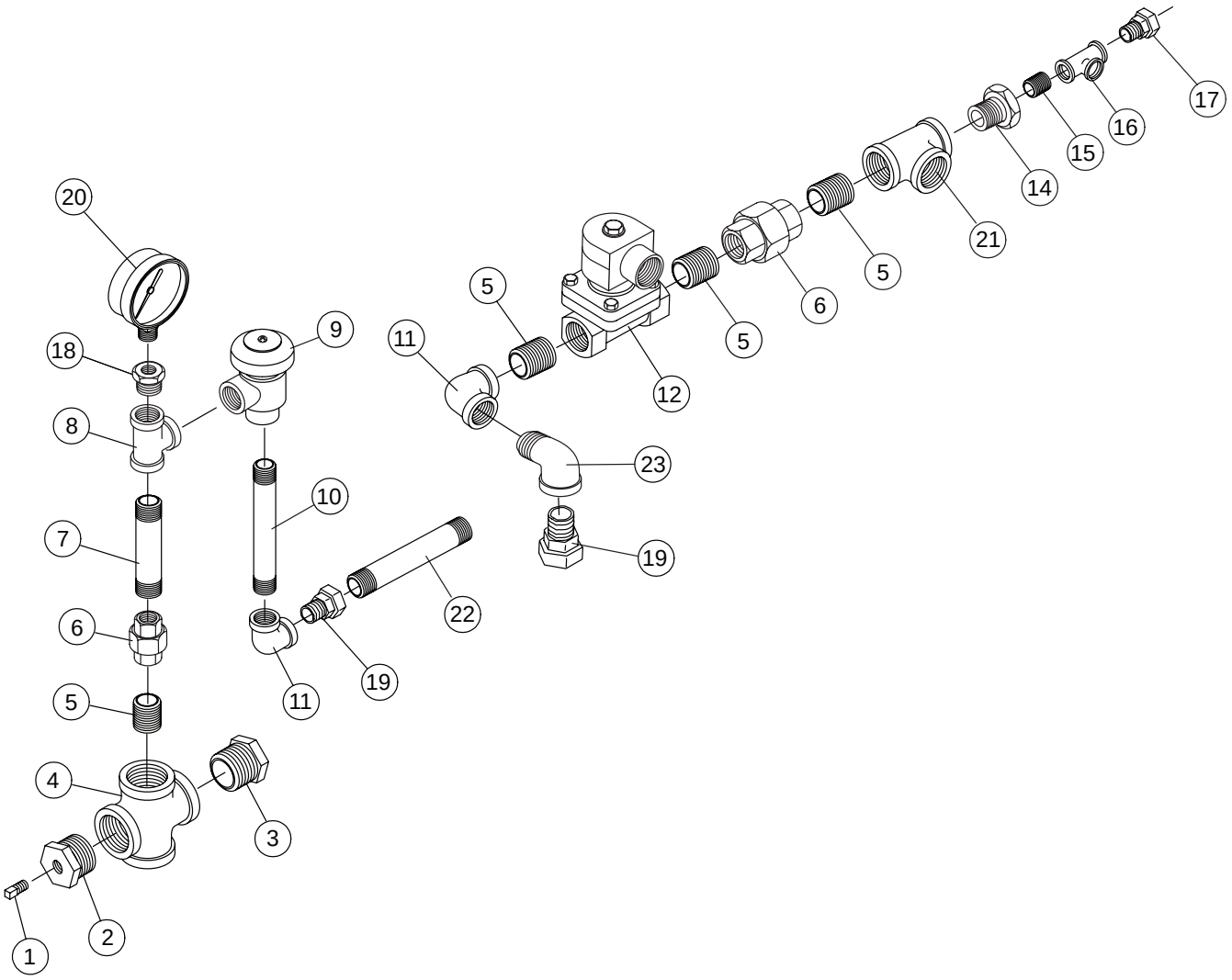
Item No.	Part No.	Description	Qty.
1	113715	Ring, Retaining	2
2	328985	Lever Drain Lift	1
3	206442	Rod, Overflow Lift	1
4	206444	Block, drain lift	1
5	107966	Nut, Grip 10-32 w/Nylon Insert	2
6	112257	O-ring	1
7	100735	Bolt 1/4-20 x 5/8 Hex Head	4
8	106026	Washer 1/4 x 5/8 x 1/6 SST	5
9	111532	O-ring, Drain 1.600 ID x .21	1
10	111034	Drain , Flange Cast/Mach SST	1
11	----------	Overflow 2-tank Wash Tank (Breakdown previous page)	1
----	----------	Overflow 2-tank Rinse Tank (Breakdown previous Page)	1
12	107367	Chain, Bead #10	2FT
13	107966	Grip Nut, 10-32 w/nylon insert SST	1
14	107368	Fitting, Chain End Coupling	2

Final Rinse Piping with Booster



Item No.	Part No.	Description	Qty.
1	See Chart Below for Manifold P/N's		
2	106026	Washer 1/4 x 5/8 x 1/16 SST	1
3	107967	Nut Grip 1/4-20 w/Nylon Insert	1
4	See Chart Below for Upper Nozzle P/N's		3
5	See Chart Below for Lower Nozzle P/N's		3
6	113795	Plug 11/16-16 Thread	2
--	113716	Gasket Rinse Pipe (Not Shown)	1
7	100156	Locknut 3/4NPT Brass	1
8	100599	Cross 3/4” NPT Brass	1
9	105976	Bushing Red 3/4” NPT x 1/8” NPT Brass	1
10	101259	Plug 1/8” NPT Brass	1
11	100184	Nipple 3/4”NPT Close Brass	1
12	100571	Union 3/4”NPT Brass	1
13	102470	Nipple 3/4” NPT x 3” Lg Brass	1
14	102388	Bushing, Reducing 1/2”NPT x 1/4”NPT Brass	1
15	104429	Vacuum Breaker 3/4”NPT	1
16	900837	Kit*Repair, 3/4 Vacuum Breaker	A/R
17	102525	Tee, Red 3/4” x 1/2” x 3/4” NPT Brass	1
18	109879	Fitting Compression 3/4”NPT x 7/8” OD	1
19	100171	Bushing Red Face 3/4” NPT x 1/2 NPT Brass	1
20	102490	Nipple 1/4”NPT x 3-1/2” Lg Brass	1
21	100135	Pressure Gauge 0-60 PSI	1
22	102442	Elbow 3/4 x 90° Brass	1

Model	**Upper Final Rinse Nozzle**	**Lower Final Rinse Nozzle**	**Final Rinse Manifold R-L**	**Final Rinse Manifold L-R**
	P/N	P/N	P/N - Dim.	P/N - Dim.
E44/54	107290	112022	113699 - 25-3/4"	113694 - 25-3/4"
E44/54 HH	107290	112022	114023 - 29-3/4"	114022 - 29-3/4"
E44/54DR	180282	112022	329010 - 25-3/4"	329265 - 25-3/4"
E44/54DR HH	107290	112022	114023 - 29-3/4"	114022 - 29-3/4"
E44/54WS	0508376	112022	113699 - 25-3/4"	113694 - 25-3/4"
E44/54DRWS	0508376	112022	329010 - 25-3/4"	329265 - 25-3/4"
E64/84	107290	112022	113699 - 25-3/4"	113694 - 25-3/4"
E64/E84 HH	107290	112022	114023 - 29-3/4"	114022 - 29-3/4"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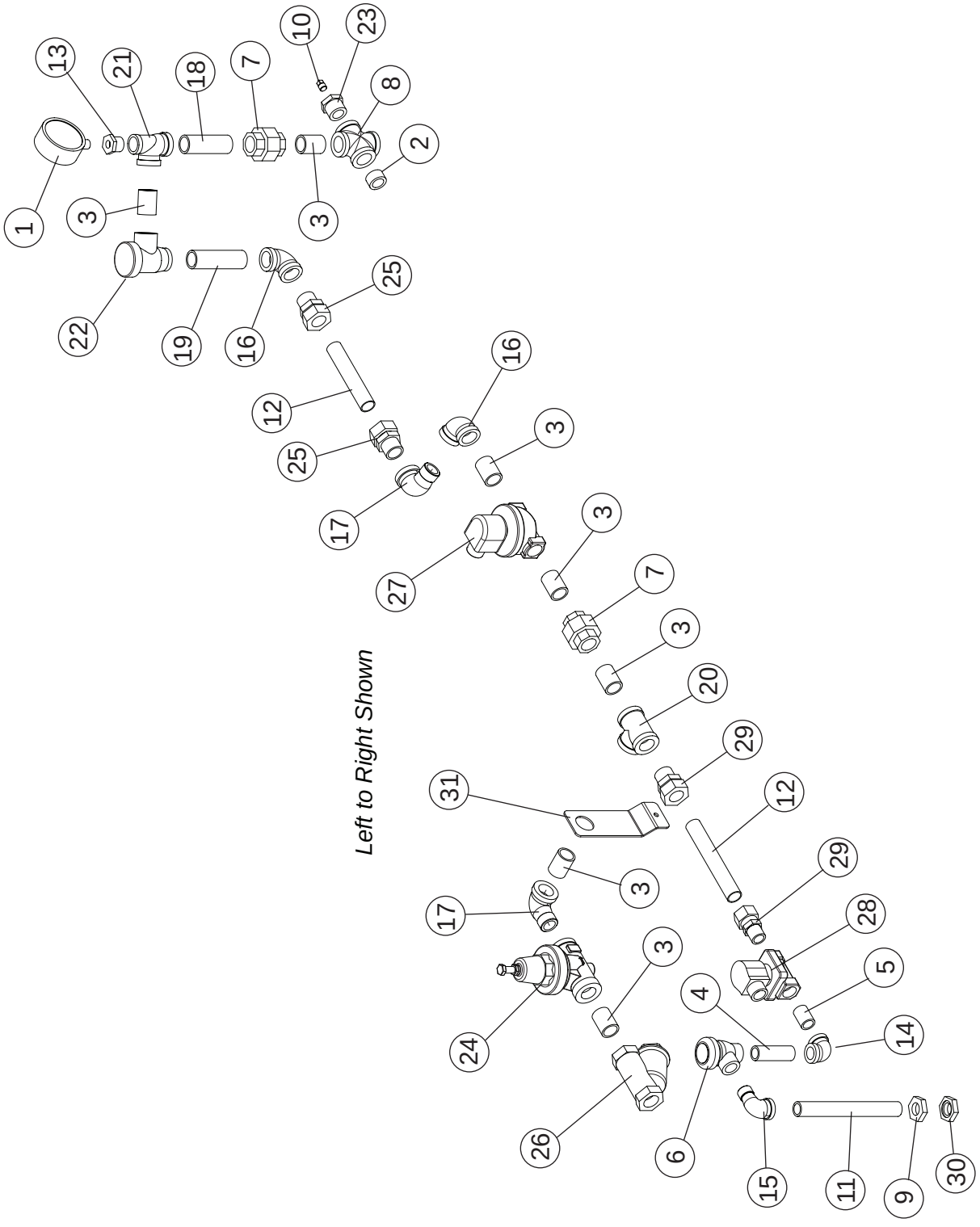
Item No.	Part No.	Description	Qty.
1	101259	Plug, 1/8” NPT Brass	1
2	105976	Bushing, Red 3/4” NPT x 18” NPT Brass	1
3	100171	Bush Red Face 3/4” NPT x 1/2” NPT Brass	1
4	100599	Cross, 3/4”NPT Brass	1
5	100184	Nipple 3/4” NPT Close Brass	4
6	100571	Union 3/4” NPT Brass	2
7	102470	Nipple 3/4” x 3” Lg Brass	2
8	102525	Tee Red 3/4 x 1/2 x 3/4 Brass	1
9	104429	Vacuum Breaker 3/4” NPT Brass	1
--	900837	Kit*Repair, Vacuum Breaker 3/4”	A/R
10	102490	Nipple 3/4” NPT x 3-1/2”Lg Brass	1
11	102442	Elbow 3/4”NPT x 90° Brass	1
12	111437	Valve, Solenoid 3/4” HW	1
--	109903	Kit Repair 3/4 JE Stm-Wat	A/R
--	111472	Replacement Coil 3/4” Solenoid Valve	A/R
13	107418	Tee, 3/4”NPT x 3/4”NPT x 1/4”NPT Brass	1
14	102392	Bushing Red 3/4” x 1/2” NPT	1
15	100209	Nipple 1/2” NPT Brass	1
16	102514	Tee 1/2” NPT Brass	1
17	111250	Fitting Compression 1/2 OD x 1/2 MPT	1
18	102388	Bushing, Reducing 1/2” NPT x 1/4” NPT Brass	1
19	109879	Fitting, Comp 7/8OD x 3/4 MPT Brass	1
20	100135	Pressure Gauge 0-60 PSI	1
21	102521	Tee 3/4” NPT Brass	1
22	102490	Nipple 3/4” NPT x 3-1/2”Lg Brass (w/Steam Booster Only)	1
23	102444	Elbow Street 34 x 90° Brass	1


Left to Right Shown
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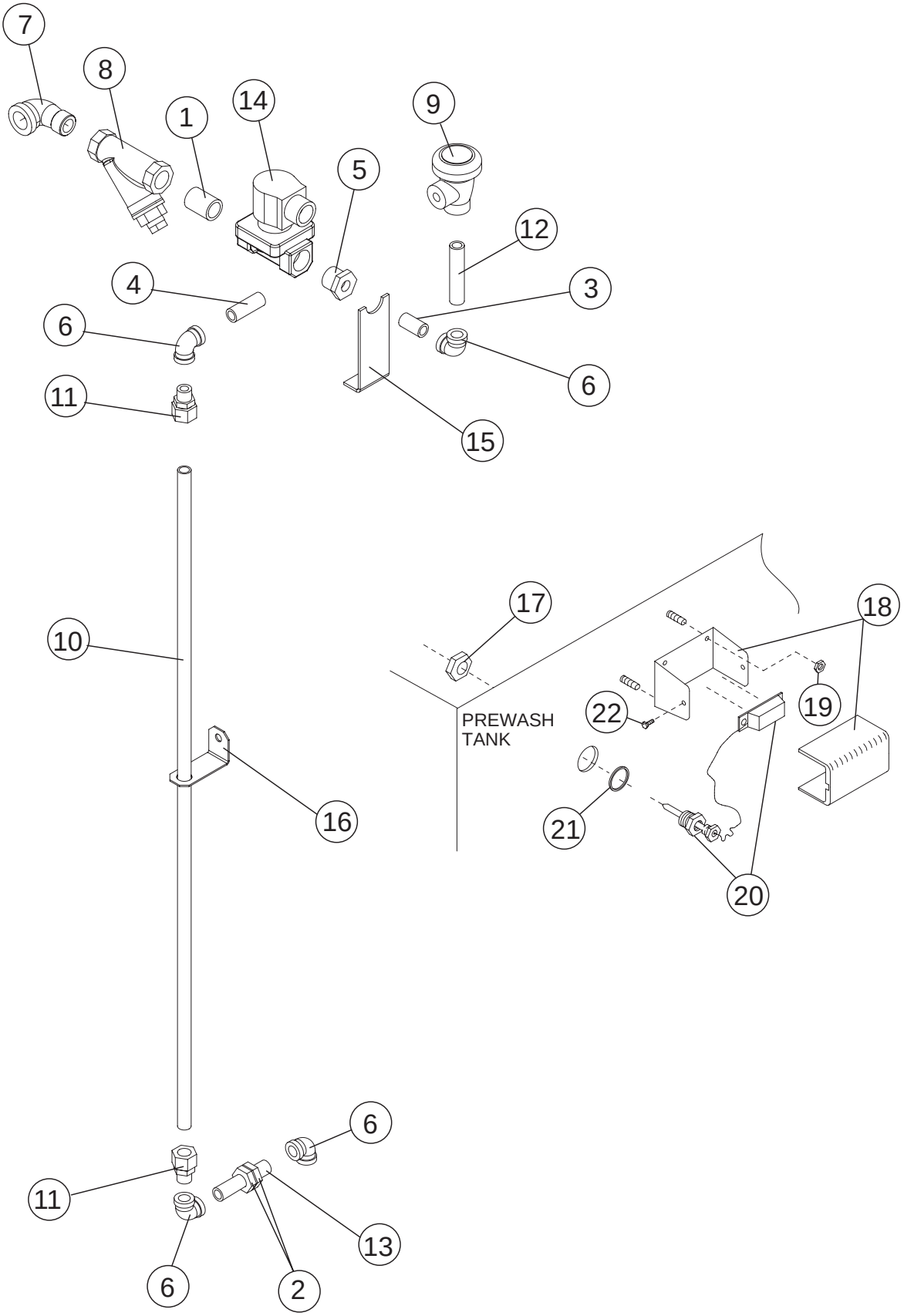
Item No.	Part No.	Description	Qty.
1	100135	Gauge, Pressure 0-60 PSI	1
2	100171	Bushing, Red. Face 3/4" x 1/2" Brass	1
3	100184	Nipple, Close 3/4" NPT Brass	7
4	100206	Nipple, 1/2" NPT x 2-1/2" Lg. Brass	1
5	100209	Nipple, Close 1/2" NPT	1
6	100500	Breaker, Vacuum 1/2" NPT Bronze	1
---	900836	Kit, Repair Vacuum Breaker	A/R
7	100571	Union, 3/4" NPT Brass	2
8	100599	Cross, 3/4" NPT Brass	1
9	100709	Locknut, 1/2" NPT Brass	1
10	101259	Plug, 1/8" NPT Sq. Hd. Brass	1
11	101397	Nipple, RTOE, 1/2" NPT x 7" Lg. Brass	1
12	102104	Tube, E-series Final Rinse Vertical	2
13	102388	Bushing Reducing, 1/2" NPT x 1/4" NPT Brass	1
14	102435	Elbow, 1/2" NPT x 90° Brass	1
15	102438	Elbow, Street 1/2" NPT x 90° Brass	1
16	102442	Elbow, 3/4" NPT x 90° Brass	2
17	102444	Elbow, Street 3/4" NPT x 90° Brass	2
18	102470	Nipple, 3/4" NPT x 3" Lg. Brass	1
19	102490	Nipple, 3/4" NPT x 3-1/2" Lg. Brass	1
20	102521	Tee, 3/4" NPT Brass	1
21	102525	Tee, Red 3/4" x 1/2" x 3/4" NPT	1
22	104429	Breaker, Vacuum 3/4" Brass	1
---	900836	Kit, Repair Vacuum Breaker	A/R
23	105976	Bush, Red 3/4" x 1/2" Brass	1
24	107550	Valve, Pressure Regulating 3/4" NPT Brass	1
25	109879	Fitting Comp. 7/8" O.D. x 3/4" NPT Brass	3
26	110768	Strainer, Line 3/4" NPT Bronze Female	1
27	111437	Valve, Solenoid 3/4" NPT HW 120VAC coil	1
---	109903	Kit, Repair 3/4" Diaphragm	A/R
---	111472	Coil, Solenoid 3/4" 120VAC	A/R
28	113352	Valve, Solenoid 1/2" NPT HW 120VAC coil	1
---	113392	Kit, Repair 1/2" Diaphragm	A/R
---	113357	Coil, Solenoid 1/2" 120VAC	A/R
29	114384	Fitting, Comp. 7/8" O.D. x 1/2" NPT Brass	1
30	201029	Locknut, 1/2" NPT NP	1
31	311694	Bracket, Piping Support	1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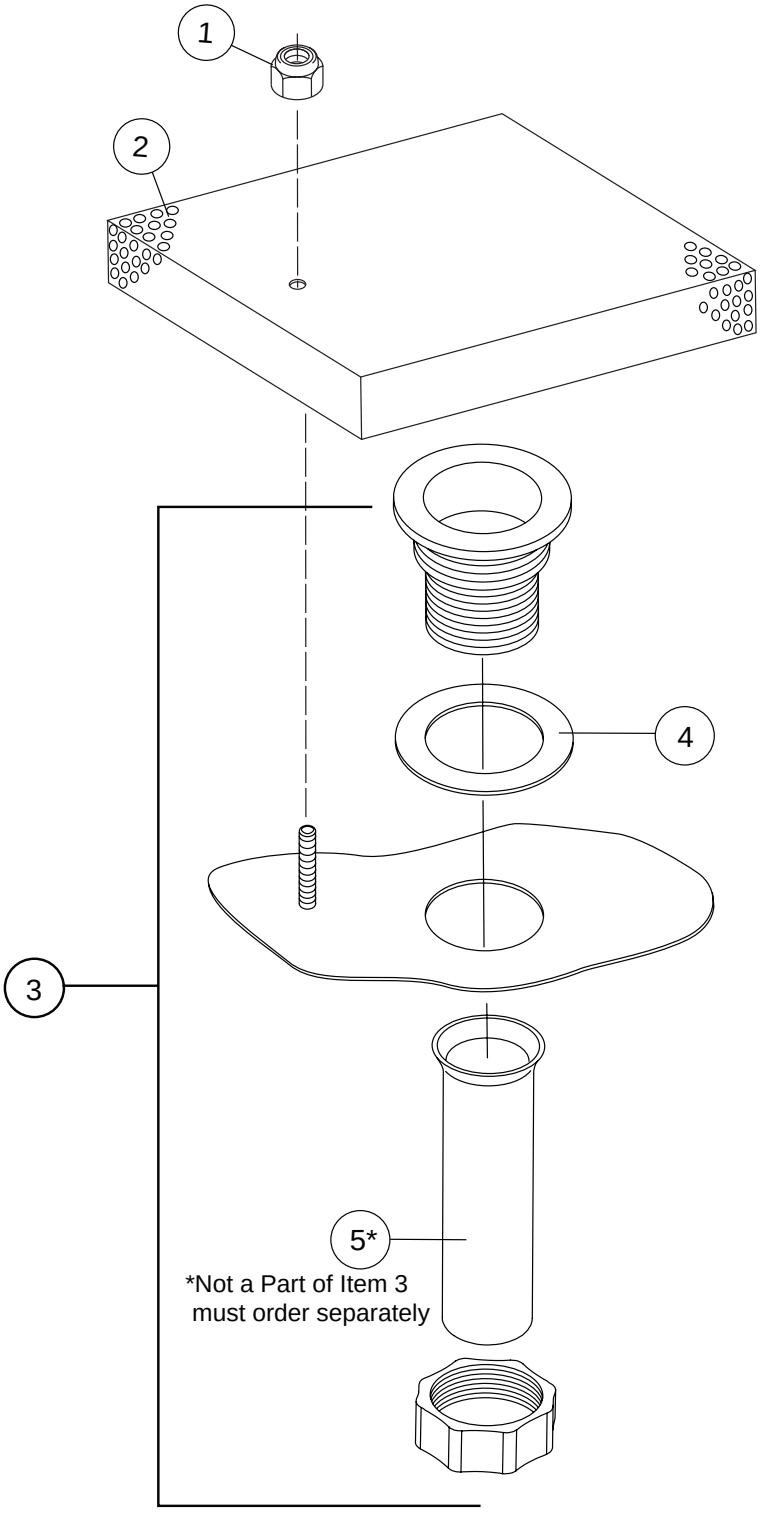
Item No.	Part No.	Description	Qty.
1	100209	Nipple, 1/2" NPT Close, Brass	1
2	100573	Locknut, 1/2" NPT Brass	2
3	100947	Nipple, 1/4" NPT Close Brass	1
4	101262	Nipple, 1/4" NPT x 1-1/2" Lg. Brass	1
5	102388	Bushing Reducing 1/2" NPT x 1/4" NPT Brass	1
6	102422	Elbow, 1/4" NPT 90° Brass	4
7	102438	Elbow, Street 1/2" NPT 90° Brass	1
8	104421	Strainer, Line 1/2" NPT Bronze	1
9	107069	Breaker, Vacuum 1/4" NPT Bronze	1
---	900836	Kit, Repair Vacuum Breaker	A/R
10	107315	Tubing, 3/8" Type L Copper	1
11	109909	Fitting Comp. 1/2" O.D. x 1/4" MPT Brass	2
12	110134	Nipple, 1/4" NPT x 2-1/2" Lg. Brass	1
13	112109	Nipple, RTOE 1/4" NPT x 2-1/2" Lg. Brass	1
14	113352	Valve, Solenoid 1/2" NPT 120VAC	1
---	113392	Kit, Repair Valve Diaphragm 1/2"	A/R
---	113357	Coil, Solenoid 1/2" 120VAC	A/R
15	319549	Bracket, Cold Water Thermostat Piping	1
16	328539	Bracket, Piping Support	1
17	100547	Locknut, 1/2" NPT SST	1
18	107922	Box and Cover, Thermostat	1
19	107966	Gripnut, 10-32 w/nylon insert	2
20	109069	Thermostat, Control w/capillary	1
21	201041	Washer	1
22	106460	Screw, 6-32 x 1/4" Truss Hd.	2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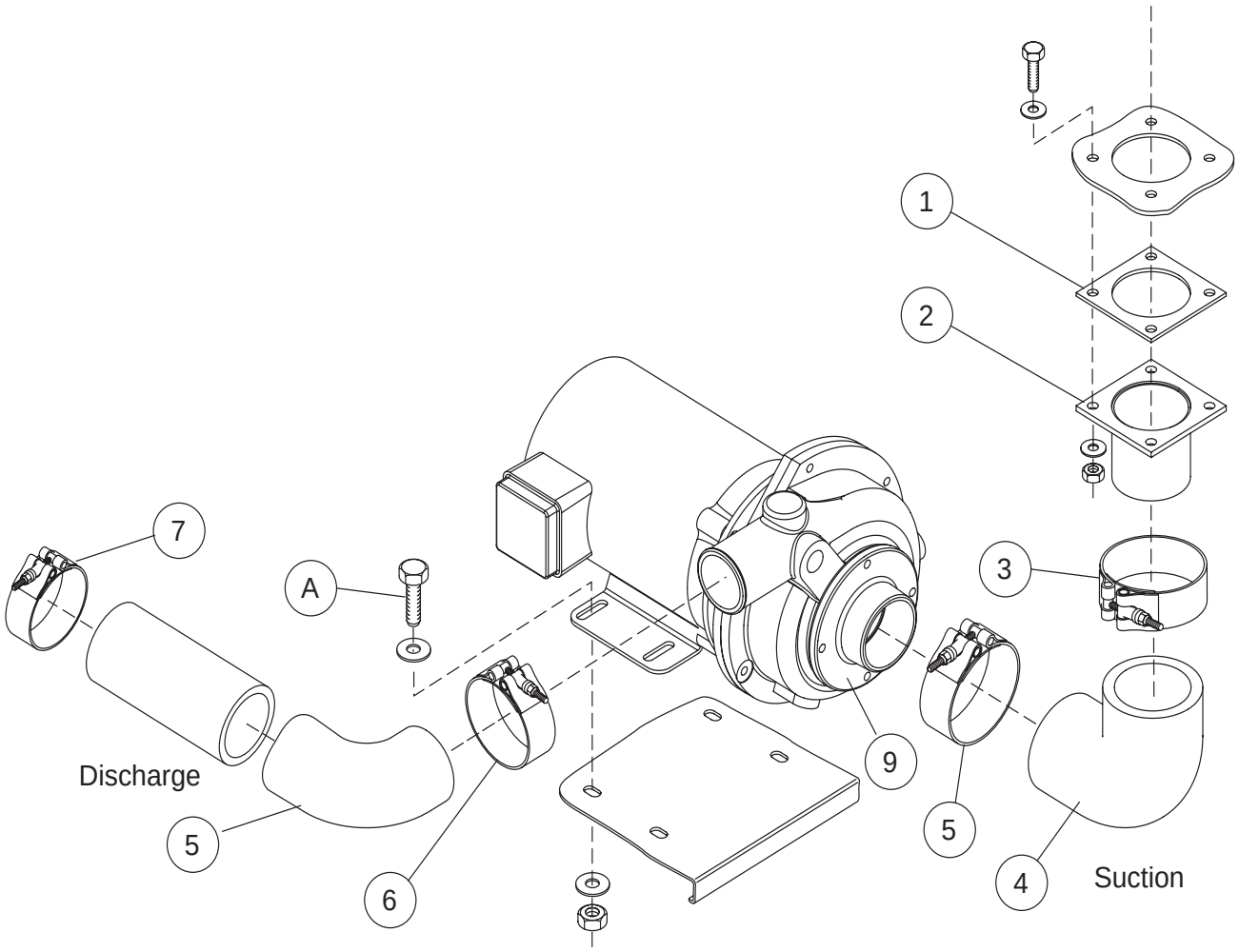
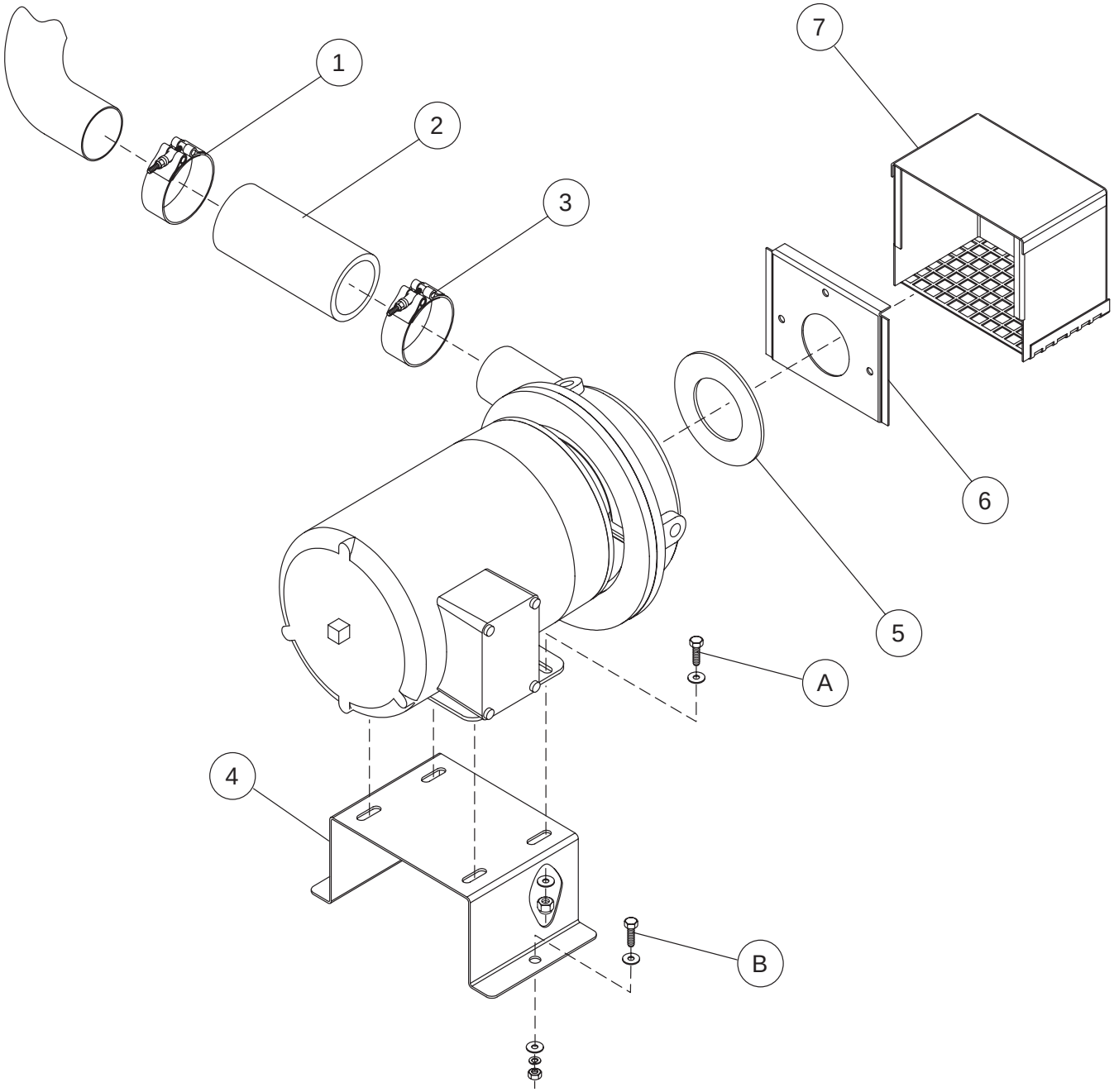
*Not a Part of Item 3
must order separately

Item No.	Part No.	Description	Qty.
1	100141	Nut, Grip 1/4-20	1
2	305218	Strainer, F/R Drain	1
3	107342	Drain basket assy. (Does not include Item 5)	1
4	112045	Washer,tailpiece (Comes with Item 3)	1
5	107473	Tailpiece	1



L-R Application Shown

Item No.	Part No.	Description	Qty.
1	109568	Gasket Pump Suction	1
2	307995	Flange, Suction	1
3	104203	Clamp, Hose M52 SST	2
4	113717	Hose, PW Suction	1
5	113731	Hose 22” PW Pump Discharge	1
6	104165	Clamp, Hose M40 SST	1
7	111964	Hose, Clamp Discharge	1
8	311761	Strainer, Pump Suction (Not Shown)	1
9	112379	Suction, Flange Machined	1
10	112338	Gasket Pump Suction Flange (Not Shown)	1
A		**Pump Fasteners**	
	100739	Bolt 5/16-18 x 3/4 Hex Head SST	4
	102376	Washer 5/16 x 3/4 x 1/16	8
	109009	Nut, Grip 5/16 w/Nylon Insert	4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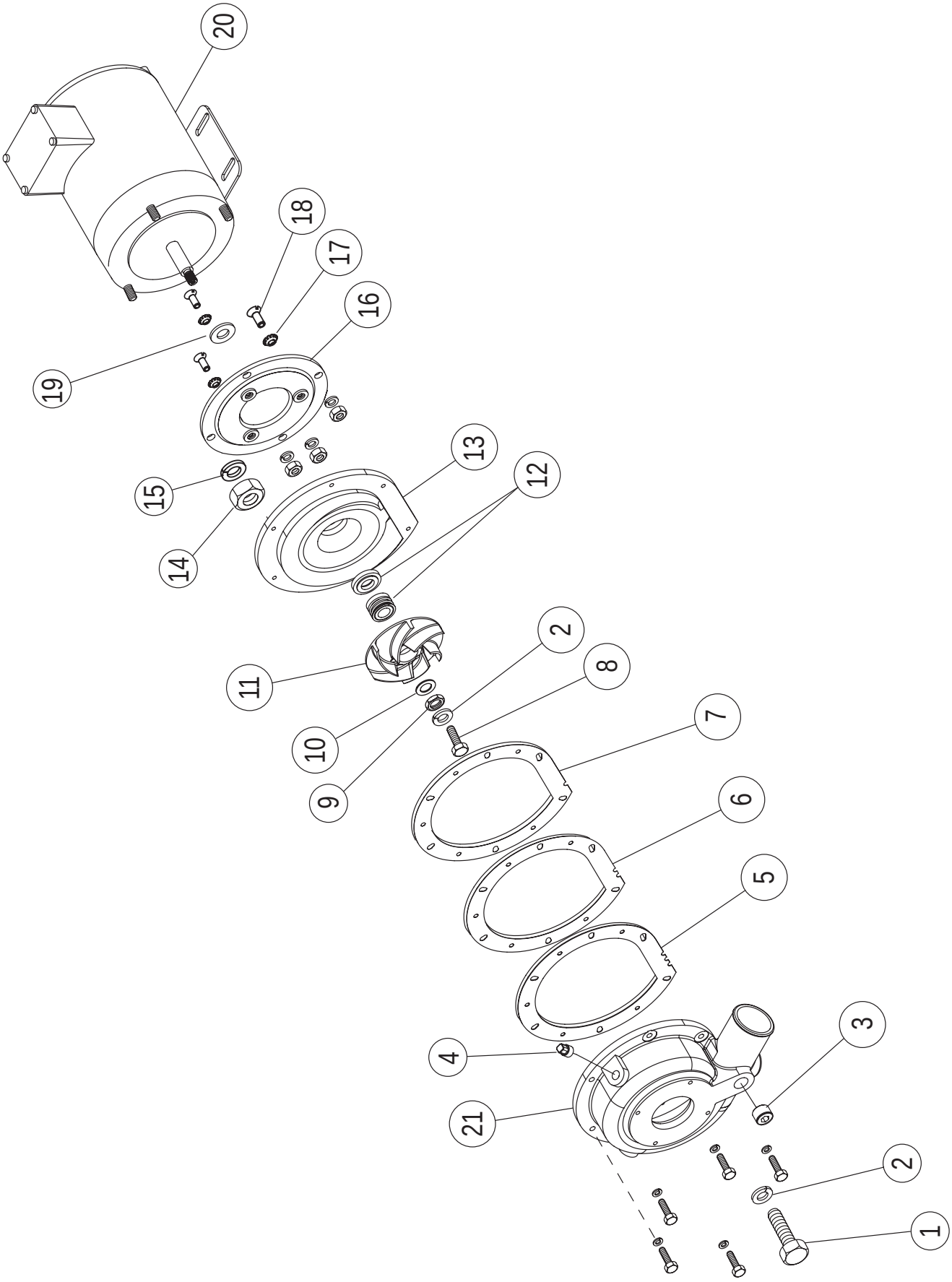
Item No.	Part No.	Description	Qty.
1	110858	Hose Clamp Pump Discharge	1
2	113984	Hose Discharge Pump	1
3	111780	Hose Clamp Discharge	1
4	327997	Pump Motor Base	1
5	113538	Gasket Pump Suction	1
6	327906	Plate, Pump Suction	1
7	327904	Hood Pump Suction	1
A		**Pump Base Fasteners**	
	100739	Bolt 5/16-18 x 3/4 Hex Head SST	4
	102376	Washer 5/16 x 3/4 x 1/16	8
	109009	Nut Grip 5/16 w/Nylon Insert	4
B		**Pump Fasteners**	
	100739	Bolt 5/16-18 x 3/4 Hex Head SST	4
	102376	Washer 5/16 x 3/4 x 1/16	8
	109009	Nut, Grip 5/16 w/Nylon Insert	4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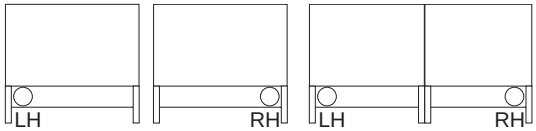
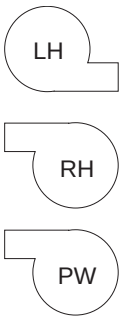
Item No.	Part No.	Description	Qty.
1	100736	Screw 1/4-20 x 3/4 Hex Head	6
2	106482	Washer, Lock 1/4”	10
3	113705	Plug 1/2” NPT Countersunk Brass (2HP) (Wash/Rinse)	1
3	102504	Plug 1/2” NPT Brass Sq Head (1HP) (Prewash)	1
4	102500	Plug 1/4” NPT Brass	2
5	111943	Gasket .032 Thk (3 Notches)	1
6	111942	Gasket .015 Thk (2 Notches)	1
7	111941	Gasket .0085 Thk (1 Notch)	1
8	100735	Screw 1/4-20 x 5/8 Hex Head	1
9	110247	Nut Jam Hex 7/16-20 SST	1
10	110248	Washer .44OID x .043SST	1
11	113118	Impeller 1HP, SST Machined (Prewash)	1
---	113603	Impeller 2HP and 3HP SST Machined (Wash/Rinse)	1
12	111111	Seal Pac Type 16	1
13	113635	Flange, Jet Pump, SST NG	1
14	107690	Nut, Jam 3/8-16	4
15	106407	Washer, Lock 3/8 Split	4
16	204460	Backing Plate 1Hp, 2HP, 3HP	1
17	110270	Washer, C-Sunk, Ex-Tooth SST	3
18	100754	Screw 10-32 x 1/2 Flat Head	3
19	109654	Slinger-Water	1
20	110419	Motor 1HP MV/60/1 (Prewash)	1
---	110421	Motor 2HP MV/60/1 (Prewash)	1
---	110420	Motor 1HP MV/60/3 (Prewash)	1
---	111739	Motor 1HP 575/60/3 (Prewash)	1
---	113420	Motor 2HP MV/60/3 (Wash/Rinse)	1
---	111740	Motor 2HP 575/60/3 (Wash/Rinse)	1
---	110424	Motor 3HP MV/60/3 (Wash/Rinse)	1
---	111741	Motor 3HP 575/60/3 (Wash/Rinse)	1
21	112380	Pump Volute Machined (Prewash)	1
---	113634	Pump Volute SST (Wash/Rinse)	1
---	112338	Gasket, Pump Suction Flange (Not Shown)	1
---	900737	Kit*Gaskets, Jet Pump (Includes Items 5-7)	A/R
---	900183	Kit*Seal & 1HP Impeller (Includes Items 5-7, 11 and 12)	A/R
---	900184	Kit*Seal & 2HP Impeller (Includes Items 5-7, 11 and 12)	A/R
---	900185	Kit*Seal & 3HP Impeller (Includes Items 5-7, 11 and 12)	A/R

Complete Pump Assemblies:

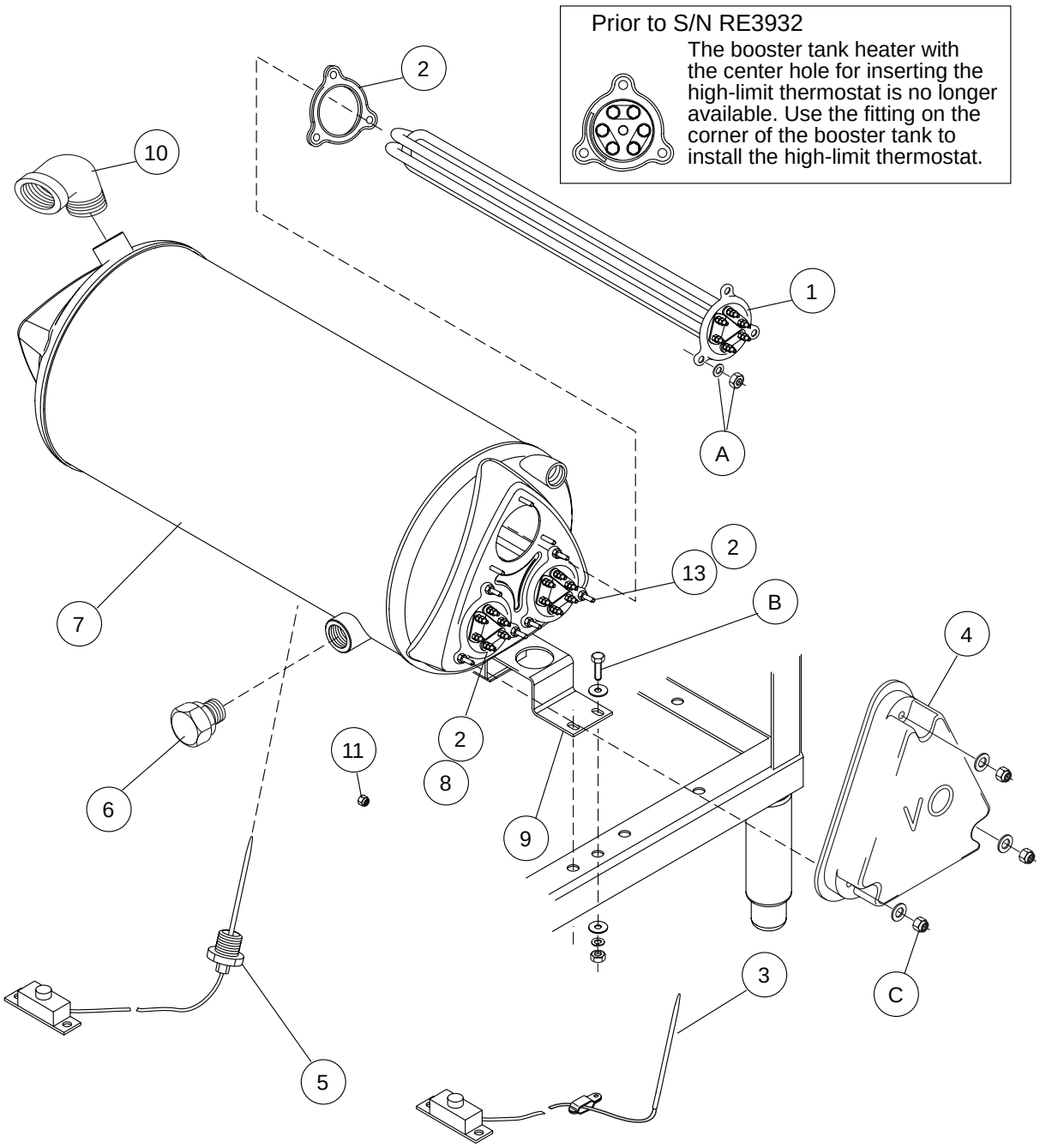
415531	1HP PW 115-240/1/60	414821	2HP RH 115-240/1/60
414965	1HP PW 208-480/3/60	414374	2HP RH 208-480/3/60
415917	1HP PW 575/3/60	416243	2HP RH 220/380/3-50
415743	2HP PW 115-240/1/60	415919	2HP RH 575/3/60
415744	2HP PW 208-480/3/60	414977	3HP LH 208-480/3/60
415745	2HP PW 575/3/60	415920	3HP LH 575/3/60
414820	2HP LH 115-240/1/60	414978	3HP RH 208-480/3/60
414373	2HP LH 208-480/3/60	415921	3HP RH 575/3/60
415918	2HP LH 575/3/60		

LH and RH indicate on which side of the machine the pump is located.





Pump Configurations


Prior to S/N RE3932
The booster tank heater with the center hole for inserting the high-limit thermostat is no longer available. Use the fitting on the corner of the booster tank to install the high-limit thermostat.
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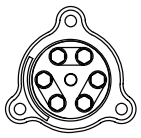
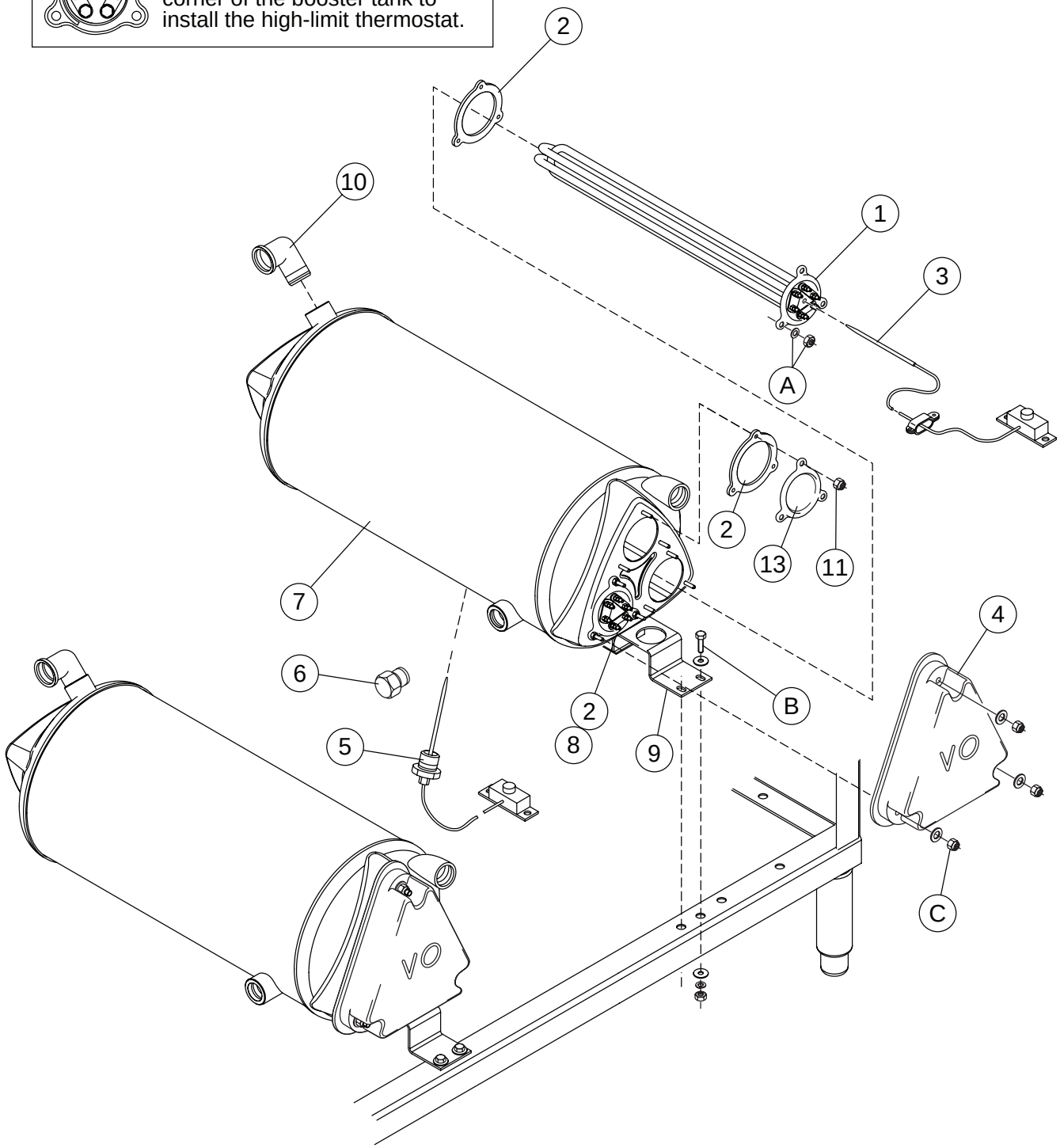
Item No.	Part No.	Description	Qty.
1	113690	Heater, 12KW 208/60/3Ph (60°F)(200-220V/1Ph & 3PH)	1
	113885	Heater, 12KW 220/230/240/380/415V 3Ph (60°F)(230-240/1PH & 3PH)	1
	113886	Heater, 12KW 460/480V 3Ph (60°F)	1
	113887	Heater, 12KW 575V 3Ph(60°F)	1
	111233	Heater 7.5/10KW 240V 3Ph (40°F Rise)(200-220,230-240V/1PH)	1
	111232	Heater, 10KW 208V 3PH (40°F Rise)(220-220/3PH)	1
	111234	Heater, 10KW 480V 3PH (40°F Rise (480V 3PH)	1
	111383	Heater, 10KW 575V3PH (40°F Rise)(480V 3PH)	1
2	109985	Seal, Electric Heater Flange	3
3	113724	Thermostat w/Capillary 210°F *(Prior to S/N RE3932)*	1
---	110561	Thermostat w/Capillary, Fixed High Limit 240°F *(After S/N RE3932)*	1
4	108576	Cover, Booster No Cutout	1
5	109069	Thermostat w/ Capillary	1
6	102505	Plug 3/4” NPT Brass	1
7	414331	Tank Booster (40°F Rise)	1
8	113690	Heater, 12KW 208/60/3Ph (40°F)(200-220V/1Ph & 3PH)	1
	113885	Heater, 12KW 220/230/240/380/415V 3Ph (40°F)(230-240/1PH & 3PH)	1
	113886	Heater, 12KW 460/480V 3Ph (40°F)(460-480°/3PH)	1
	112059	Heater, 12KW 208V 3Ph (60°F Rise)(200-220V/1PH & 3PH)	2
	111334	Heater 12KW (60°F Rise) (230-240/1PH & 3PH)	2
	112060	Heater 12KW (60°F Rise)(460-480/3PH)	2
	112061	Heater 12KW 575V 3Ph (60°F Rise)	2
9	328254	Bracket, Front Booster	1
10	113706	Elbow Street 3/4 x 45 Brass (E-44)	1
11	108954	Nut Grip 6-32 w/Nylon Insert	1
12	328048	Clamp, Thermostat Booster Tank (Not shown, use with item 11)	1
13	111235	Heater, 5/6.6KW 208/240 (40° Rise)(200-220V/1PH & 3PH)	1
	111236	Heater 5KW (40°F Rise)(230-240V1PH & 3PH)	1
	111237	Heater 5KW (40°F Rise) (460-480V/3PH)	1
	111384	Heater 5KW (40°F Rise) 575V 3PH	1
A		**Element Fasteners (Qty per Element)**	
	100003	Nut Plain 1/4-20	9
	106482	Washer Lock 1/4 Split	9
B		**Booster Tank Fasteners**	
	100739	Bolt 5/16-18 x 3/4 Hex Head SST	4
	106013	Washer Lock 5/16 Split	4
	109205	Nut, Grip 5/16 w/Nylon Insert	4
C		**Element Cover Fasteners**	
	107697	Nut Grip 1/4-20 w/Nylon insert	3
	106026	Washer Flat 1/4”	

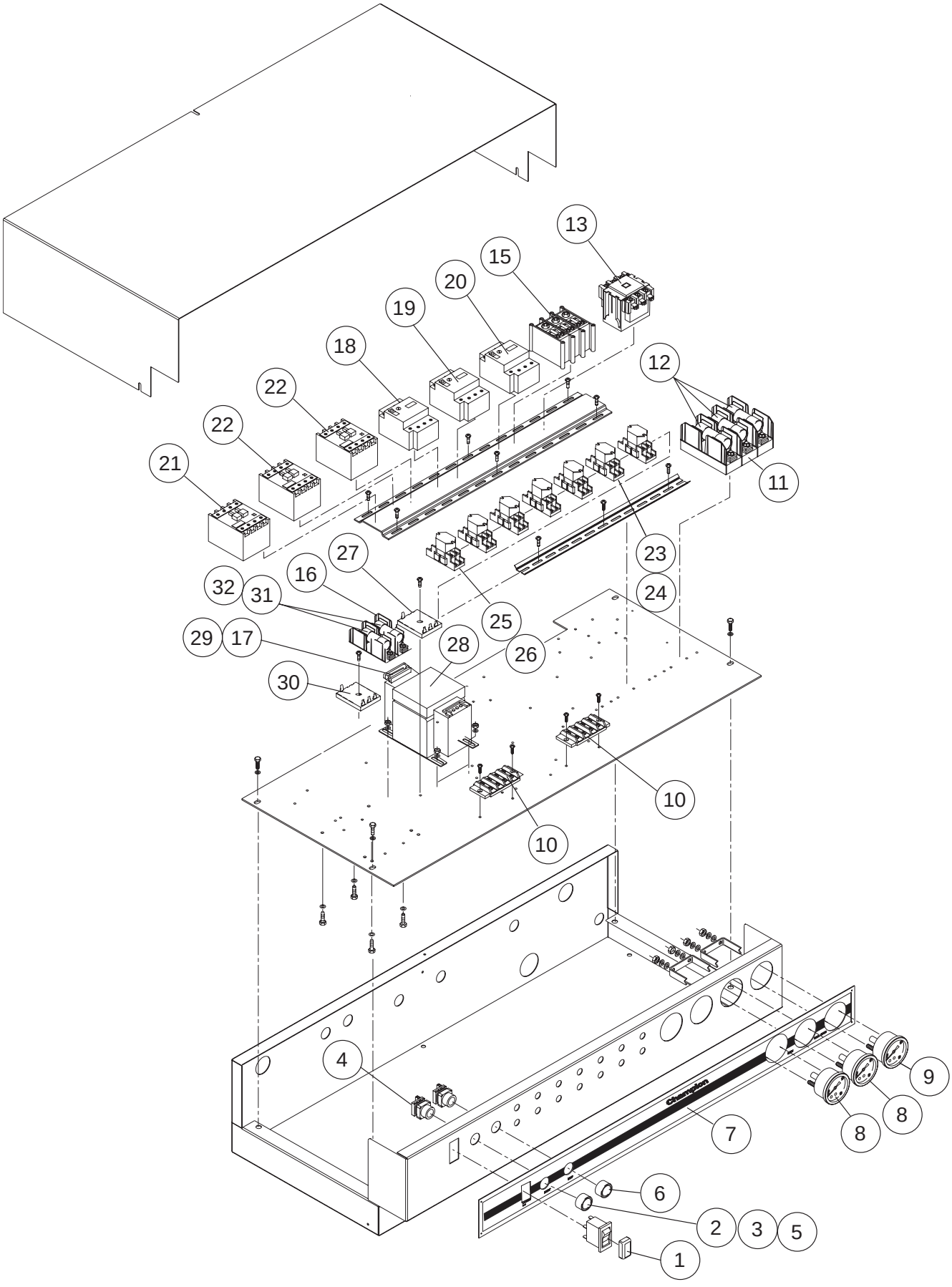
Prior to S/N RE3932



The booster tank heater with the center hole for inserting the high-limit thermostat is no longer available. Use the fitting on the corner of the booster tank to install the high-limit thermostat.



Item No.	Part No.	Description	Qty.
1	113690	Heater, 12KW (200-220V/1Ph & 3PH)	1
	113885	Heater, 12KW 220/230/240/380/415V 3Ph (230-240/1PH & 3PH)	1
	113886	Heater, 12KW 460/480V 3PH	1
	113887	Heater, 12KW 575V 3PH	1
2	109985	Seal, Electric Heater Flange	6
3	113724	Thermostat w/Capillary 210°F *(Prior to S/N RE3932*	1
---	110561	Thermostat w/Capillary Fixed High-limit 240°F *(After S/N RE3932)*	1
4	108576	Cover, Booster No Cutout	2
5	109069	Thermostat w/ Capillary	2
6	102505	Plug 3/4” NPT Brass (Not Shown) (On Opposite Side)	2
7	414331	Tank Booster	2
8	112059	Heater, 12KW (200-220V/1PH & 3PH)	2
	111334	Heater 12KW (230-240/1PH & 3PH)	2
	112060	Heater 12KW (460-480/3PH)	2
	112061	Heater 12KW 575V 3PH	2
9	328254	Bracket, Front Booster	2
10	113706	Elbow Street 3/4 x 45 Brass E-44	2
11	108954	Nut Grip 6-32 w/Nylon Insert	2
12	328048	Clamp, Thermostat Booster Tank (Not shown, use with item 11)	2
13	109458	Flange Heater Bloc/off	2
A		**Element Fasteners (Qty per Element)**	
	100003	Nut Plain 1/4-20	9
	106482	Washer Lock 1/4 Split	9
B		**Booster Tank Fasteners (Qty per Booster)**	
	100739	Bolt 5/16-18 x 3/4 Hex Head SST	4
	106013	Washer Lock 5/16 Split	4
	109205	Nut, Grip 5/16 w/Nylon Insert	4
C		**Element Cover Fasteners (Qty per Cover)**	
	107697	Nut Grip 1/4-20 w/Nylon insert	3
	106026	Washer Flat 1/4”	3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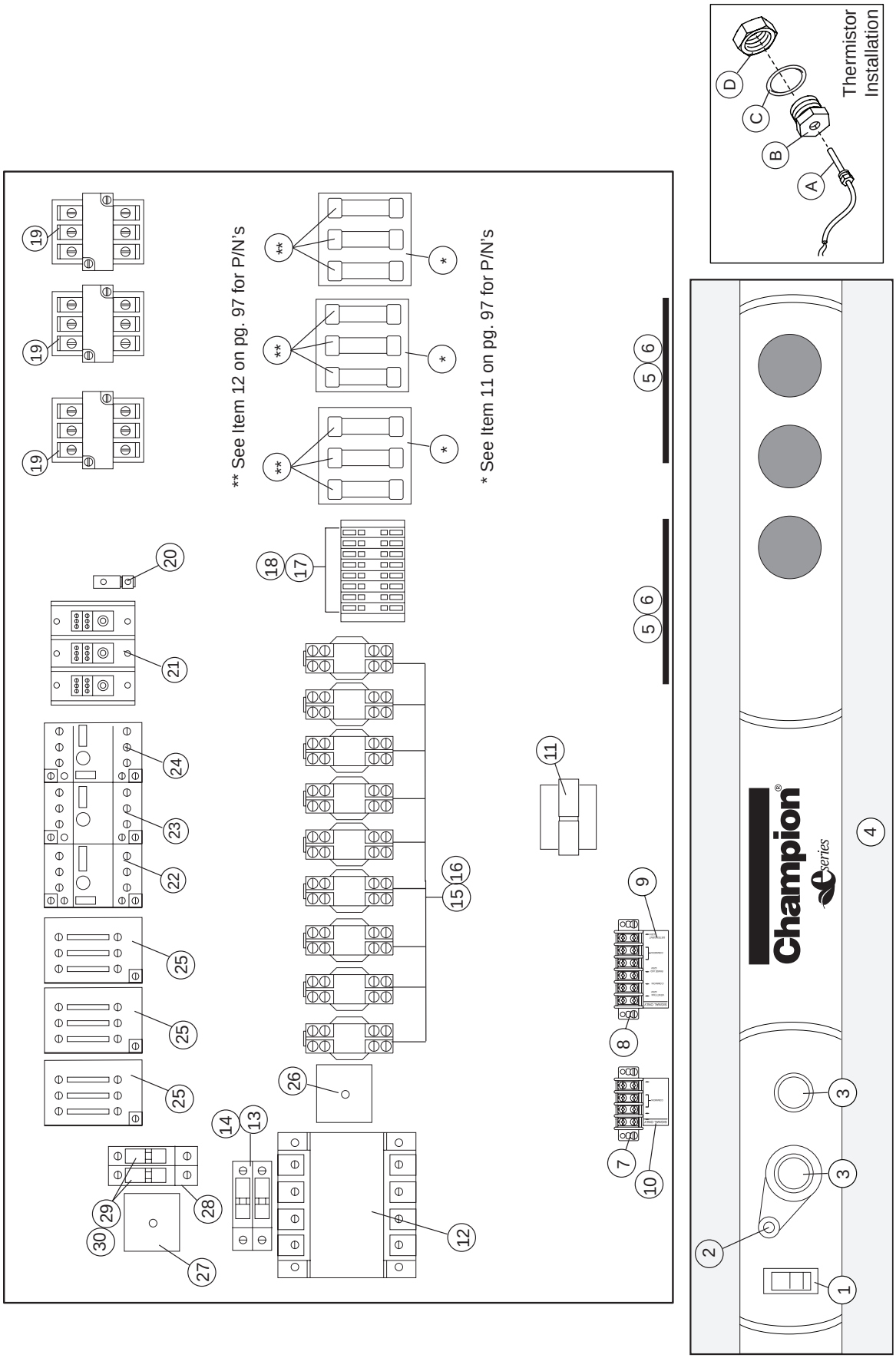
Item No.	Part No.	Description	Qty.
1	111980	Circuit Breaker On/Off 5amp	1
2	113814	Switch Pushbutton Green Illuminated	
3	113752	Mounting Base Led Green	1
4	113812	Contact Block NO W/O Base	1
5	113140	Boot, Silicone Pushbutton	2
6	900726	Red Pushbutton (Includes (1) of Item 5)	1
		Includes the following:	
	111615	Red Push Button	1
	111616	Contact Block NC w/holder	1
7	113684	Decal 44/54 Cabinet (Single Tank)	1
7	113710	Decal 40/60/64 Cabinet (Two Tank)	1
8	107440	Thermometer 8ft Flanged (Wash) (Single Tank)	1
---	107440	Thermometer 8ft Flanged (Rinse) (Two Tank)	2
9	113622	Thermometer 4Ft Gas Filled (Final Rinse)	1
10	100294	Terminal Block 6PT	1
--	112296	Label Detergent/Rinse Signal (Not Shown)	1
11	108424	Fuse Block 600V/100A 3P (208-220V/1PH)(230-240V/1PH)	1
---	180171	Fuse Block 600V/60A 3P (208-220V/3PH)(230-240V/3PH)	1
---	111135	Fuse Block 600V/30A 3P (460-480V/3PH)	1
---	111135	Fuse Block 600V/30A 3P (575/3PH)	1
12	108448	Fuse T 90A 250V Fast Act (208-220V/1PH)	2
---	180059	Fuse T 80A 250V Fast Act (230-240V/1Ph)	2
---	180175	Fuse J 50A 600V Fast Act (208-220V/3PH)	3
---	180175	Fuse J 50A 600V Fast Act (230-240V/1PH)	3
---	180174	Fuse J 45A 600V Fast Act (230-240V/3PH)	3
---	180243	Fuse J 25A 600V Fast Act (460-480V/3PH)	3
---	111231	Fuse T 90A 250V Fast Act (208-220V/1PH)	2
---	180176	Fuse J 60A 600V Fast Act (208-220V/1PH)	2
---	180172	Fuse J 35A 600V Fast Act (208-220V/3PH)	3
---	111683	Fuse J 30A 600V Fast Act (230-240V/3PH)	3
---	112062	Fuse J 20A 600V Fast Act (460-480V/575V/3PH)	3
---	111682	Fuse J 15A 600V Fast Act (575V/3PH)	3
13	111231	Contactor 75FLA 3P (208-220V/1PH)(230-240V/1PH)	1
---	111827	Contactor 60FLA 3P (208-220V/3PH), (230-240V/3PH), (460-480V/3PH) (575V/3PH)	1
14	103310	Wire Lug, Ground (Not Shown)	1
15	111833	Terminal Block 175A 3Pole 600V	1
16	106402	Fuse Block 600V/30A 2P All Voltages	1
17	111821	Fuse ATDR-3 600V Time Delay, (460-480V/3PH), (575V/3)	2
---	111823	Fuse, ATDR 6-6000V, Time Delay (208-220V/1PH & 3PH)	2
---	111823	Fuse ATDR-6 600V Time Delay 480V 1& 3 PH	2
---	114183	16 ' Lead thermometer, (Use for 106PW L-R PW)	1
---	109449	12" lead thermostat	

Item No.	Part No.	Description	Qty.
18	111625	Starter, Mtr., 1/6HP Drive 200-220/208-240V/60/1, 1.0-1.6A	1
---	111624	Starter, Mtr., 1/6HP Drive 208-220, 230-240V/60/3, .63-1.0A	1
---	111623	Starter, Mtr., 1/6HP Drive 460-480V/60/3, .4-.63A	1
---	111622	Starter, Mtr., 1/6HP Drive 575V/60/3, .24-.4A	1
19	113161	Starter, Mtr., 1HP Prewash 200-220/208-240V/60/1, 9.0-14.0A	1
---	111628	Starter, Mtr., 1HP Prewash 200-220/208-240/60/3, 4.0-6.3A	1
---	111626	Starter, Mtr., 1HP Prewash 460-480V/60/3, 1.6-2.4A	1
---	111626	Starter, Mtr., 1HP Prewash 575V/60/3, 1.6-2.4A	1
20	111630	Starter, Mtr., 2HP Wash 200-220/208-240V/60/1, 13.0-18.0A	1
---	111629	Starter, Mtr., 2HP Wash 200-220/208-240V/60/3 6.0-10.0A	1
---	111627	Starter, Mtr., 2HP Wash 460-480V/60/3 2.5-4.0A	1
---	111627	Starter, Mtr., 2HP Wash 575V/60/3 2.5-4.0A	1
---	113161	Starter, Mtr., 3HP Was/Rinse 200-220/208-240V/60/3 9.0-14.0A	1
---	111628	Starter, Mtr., 3HP Wash/Rinse 460-480V/60/3 4.0-6.3A	1
---	111627	Starter, Mtr., 3HP Wash/Rinse 575V/60/3 2.5-4.0A	1
---	111639	Auxillary Switch (Attached to Overload) (Not Shown)	A/R
---	111633	Bus System, 2-Unit (Not Shown)	A/R
---	111671	Bus System, 3-Unit (Not Shown)	A/R
---	111634	Bus System, 4-Unit (Not Shown)	A/R
21	108122	Contactor, Mtr. 12A (Drive) (208-220V/3PH), (230-240V/3PH), (460-480V/3PH), (575V/3PH)	1
22	109582	Contactor, Mtr. 25A (Prewash,Wash/Rinse) (208-220V/1PH)(230-240V/1PH)	1
---	108122	Contactor, Mtr. 12A (Wash, Rinse) (208-220V/3PH), (230-240V/3PH), (460-480V/3PH), (575V/3PH)	1
23	111036	Relay Socket	6
---	111036	Relay Socket	7
24	111068	Relay 2PDT 10A 120VA	6
---	111068	Relay 2PDT 10A 120VAC	7
---	113271	Suppressor, ARC (Not Shown)	5
25	112415	Relay Socket 3Pole	1
26	112382	Relay 3PDT 10A 120VAC	1
27	113782	Timer Fixed 90 Seconds (Idle Pump)	1
28	109064	Transformer 250VA 240/480, 230/460	1
---	107091	Transformer 500VA 240/480, 230/460	1
---	111521	Transformer 250VA, 575V	1
29	112424	Kit, Fuse Block	1
30	114189	Timer, 90 seconds (Dual Rinse) Beginning with S/N RE4086	1
31	100922	Fuse, ATMR-20A 200-220/208-240V/1-3	2
32	100913	Fuse, ATMR-10A 480-575V/60/3	2

Parts Illustration is on Page 100

Item No.	Part No.	Description	Qty.
1	111980	Power Switch, Ciircuit Breaker	1
2	702084	LED Assy.	1
3	0512213	Switch, Piezo 22mm	2
4	114436	Decal, 2-Tank with Prewash	1
---	114438	Decal 2-Tank	1
---	114439	Decal 3-Tank	1
---	114532	Decal, 2 Tank w/o Prewash R-L	1
---	114437	Decal 2 Tank w/o Prewash L-R	1
---	114532	Decal 1 Tank	1
5	114508	Cable, Digital Display	A/R
6	114489	Digital Display	A/R
7	107171	Terminal Block 4 PT	1
8	100294	Terminal Block 6 PT	1
9	113910	Label, Vent Fan etc.	1
10	113936	Label, Machine Running etc.	1
11	111277	Transformer, 120VAC:24VAC	1
12	109064	Transformer, Input Power 250VA	1
---	107091	Transformer, Input Power 500VA	1
13	112424	Kit Fuse Block	1
14	111821	Fuse 3 Amp 200-220/208-240V/60/1-3	2
---	112901	Fuse 1 Amp 460-480/575V/60/3	2
15	111036	Socket, Relay	9
16	111067	Relay, 24VAC	9
17	114520	Terminal, Single	4
18	114521	Stop, End (for single terminal)	2
19	111827	Contactor, 60A	A/R
20	103310	Lug, Ground	1
21	111833	Block Terminal, 175A 3-Pole 600V	1
22	111625	Starter, Mtr., 1/6HP Drive 200-220/208-240V/60/1, 1.0-1.6A	1
---	111624	Starter, Mtr., 1/6HP Drive 208-220, 230-240V/60/3, .63-1.0A	1
---	111623	Starter, Mtr., 1/6HP Drive 460-480V/60/3, .4-.63A	1
---	111622	Starter, Mtr., 1/6HP Drive 575V/60/3, .24-.4A	1
23	113161	Starter, Mtr., 1HP Prewash 200-220/208-240V/60/1, 9.0-14.0A	1
---	111628	Starter, Mtr., 1HP Prewash 200-220/208-240/60/3, 4.0-6.3A	1
---	111626	Starter, Mtr., 1HP Prewash 460-480V/60/3, 1.6-2.4A	1
---	111626	Starter, Mtr., 1HP Prewash 575V/60/3, 1.6-2.4A	1

Continued on Page 101


Thermistor Installation
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Champion
e series
** See Item 12 on pg. 97 for P/N's
* See Item 11 on pg. 97 for P/N's
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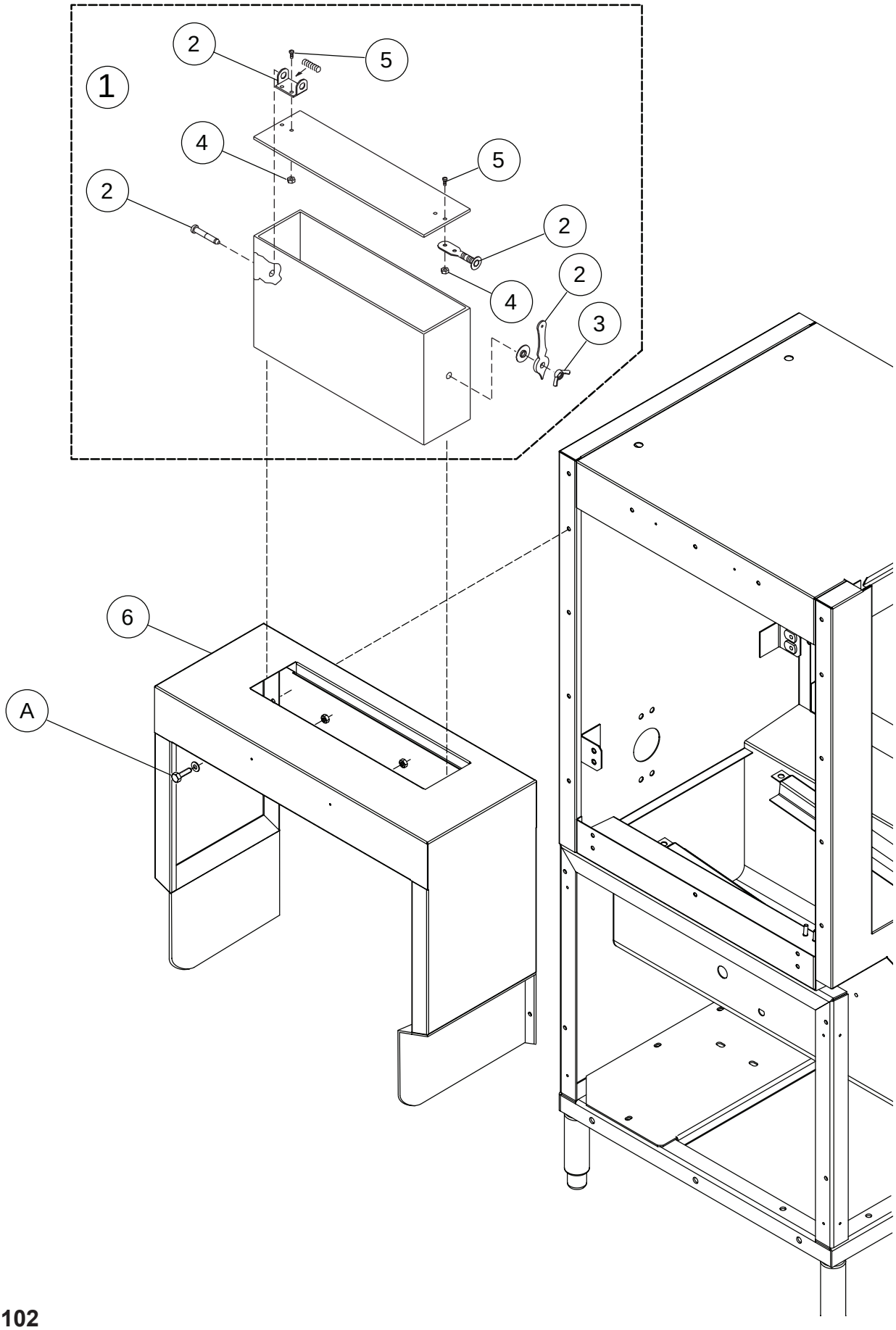
Continued from Page 99

Item No.	Part No.	Description	Qty.
24	111630	Starter, Mtr., 2HP Wash 200-220/208-240V/60/1, 13.0-18.0A	1
---	111629	Starter, Mtr., 2HP Wash 200-220/208-240V/60/3 6.0-10.0A	1
---	111627	Starter, Mtr., 2HP Wash 460-480V/60/3 2.5-4.0A	1
---	111627	Starter, Mtr., 2HP Wash 575V/60/3 2.5-4.0A	1
---	113161	Starter, Mtr., 3HP Was/Rinse 200-220/208-240V/60/3 9.0-14.0A	1
---	111628	Starter, Mtr., 3HP Wash/Rinse 460-480V/60/3 4.0-6.3A	1
---	111627	Starter, Mtr., 3HP Wash/Rinse 575V/60/3 2.5-4.0A	1
---	111639	Auxillary Switch (Attached to Overload) (Not Shown)	A/R
---	111633	Bus System, 2-Unit (Not Shown)	A/R
---	111671	Bus System, 3-Unit (Not Shown)	A/R
---	111634	Bus System, 4-Unit (Not Shown)	A/R
25	108122	Contactor, Mtr. 12A (Drive) (208-220V/3PH), (230-240V/3PH), (460-480V/3PH), (575V/3PH)	1
25	109582	Contactor, Mtr. 25A (Prewash,Wash/Rinse) (208-220V/230-240V/1PH	1
25	108122	Contactor, Mtr. 12A (Wash, Rinse) (208-220V/3PH), (230-240V/3PH), (460-480V/3PH), (575V/3PH)	1
---	113271	Arc Suppressor, (not shown)	A/R
26	113782	Timer, 90 seconds (Idle Pump)	1
27	114189	Timer, 90 seconds (Dual Rinse)	1
28	106402	Block, Fuse 600V/30A 2P Midget	1
29	100922	Fuse, ATMR- 20A 208-240VAC	2
30	100913	Fuse, ATMR-10A 480-575VAC	2
A	114435	Thermistor	1
B	0512299	Adapter	1
C	0501836	O-ring	1
D	201029	Locknut 1/2" NPT, Nickel Plated	1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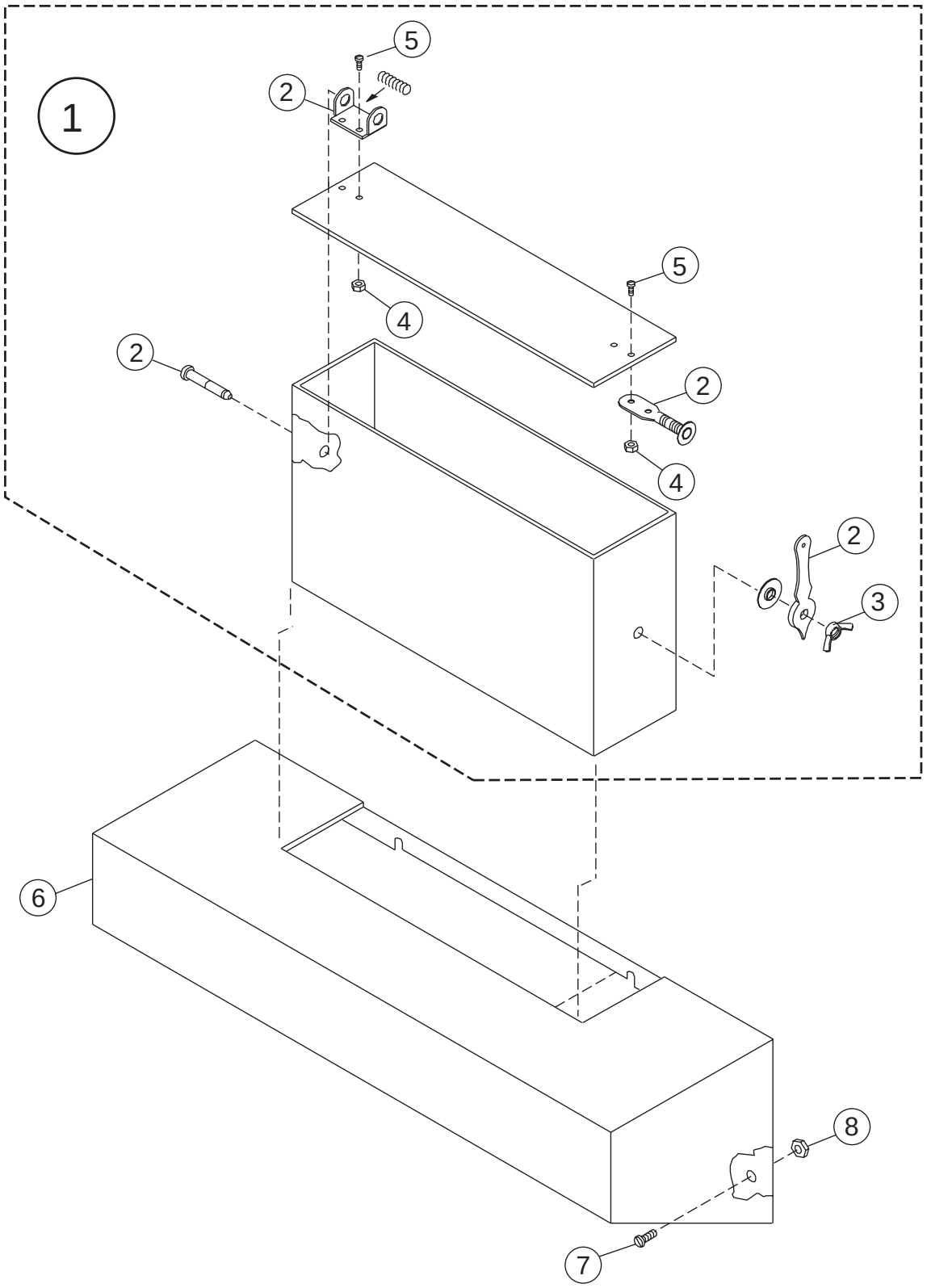
Item No.	Part No.	Description	Qty.
1	401487	Vent Stack Assembly (Includes Items 2-5)	2
2	201589	Regulator Assembly	2
3	112258	Nut Wing 1/4-20 SST	2
4	108954	Nut, Grip 6-32 w/Nylon Insert	4
5	104883	Screw 6-32 x 3/8” Round Head	4
6	328344	Vent Cowl	2
A		**Vent Cowl Fasteners (Qty per Cowl)**	
	100734	Bolt 1/4-20 x 1/2 Hex Head SST	4
	106482	Nut Grip 1/4-20 SST	4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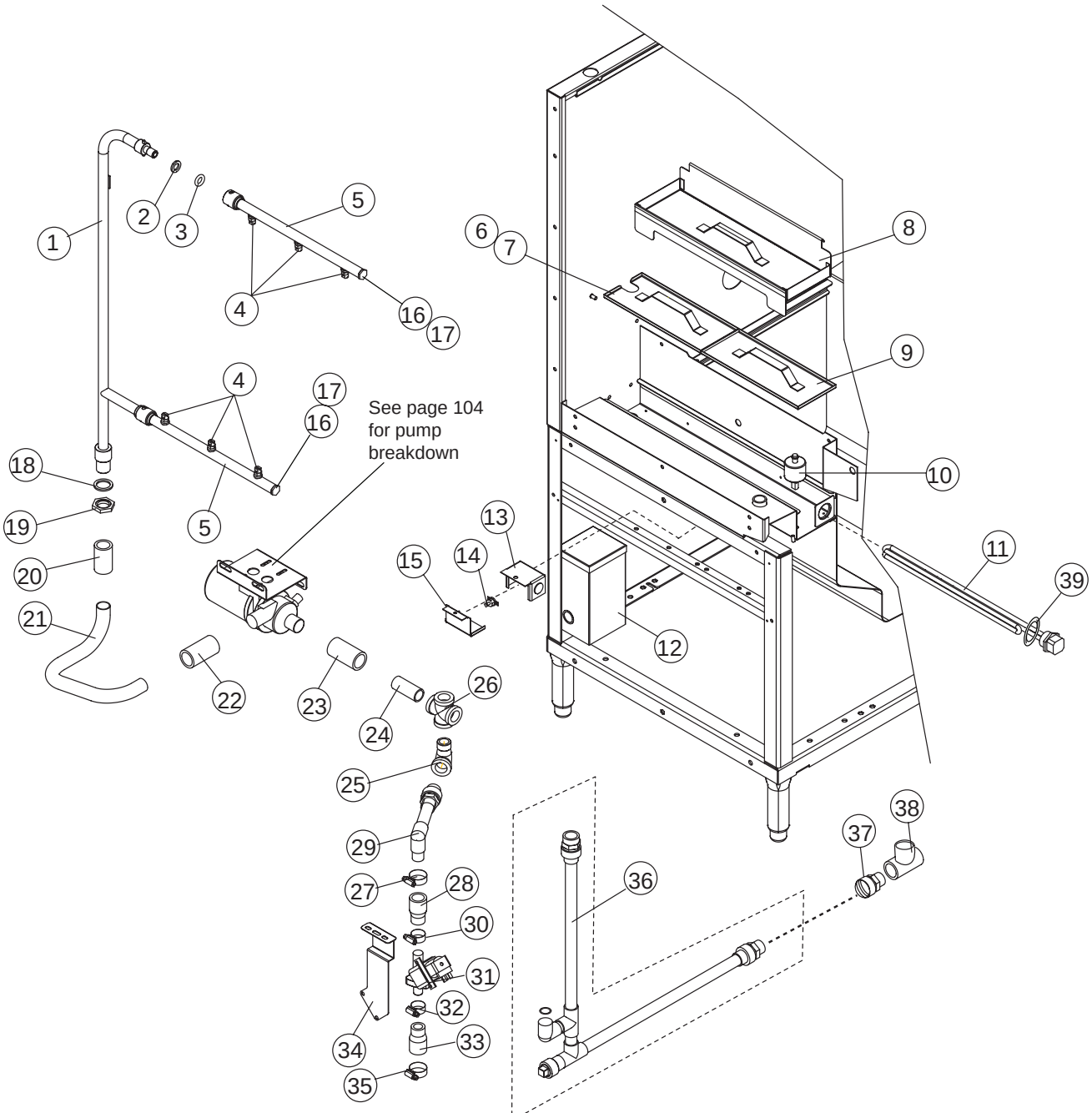
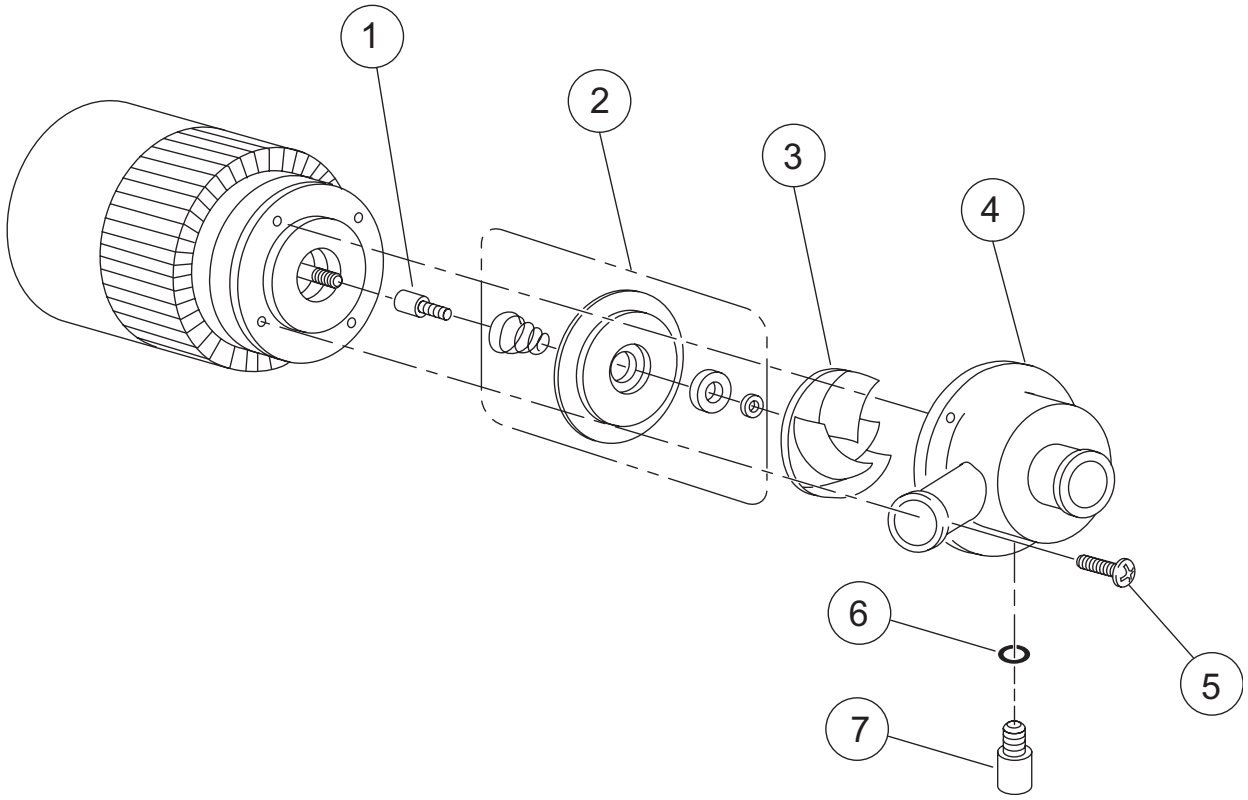
Item No.	Part No.	Description	Qty.
1	401487	Vent Stack Assembly (Includes items 2-5)	2
2	201589	Regulator Assembly	2
3	112258	Nut, Wing 1/4-20 SST	2
4	108954	Nut, Grip 6-32 w/Nylon Insert	8
5	104883	Screw 6-32 x 3/8 Round Head	8
6	307228	Vent Hood	2
7	100734	Belt 1/4-20 x 1/2” Hex Head	4
8	100141	Nut Grip 1/4-20	8
--	401889-S	Vent Hood Assembly (Includes Items 1-10)	


See page 104
for pump
breakdown

°°Item No.	Part No.	Description	Qty.
1	329167	Manifold, E44DR Aux. Rinse	1
2	114291	O-ring	2
3	114290	Washer, rubber	2
4	107290	Nozzle	3
5	329009	tube, weld horizontal	1
6	329562	Screen RH	1
7	329281	Screen LH	1
8	331017	basket, screen	1
9	329465	Screen	1
10	111443	Switch, float	1
11	113986	Element 3.2/3.9KW 200-220V/60/1-3	1
---	113987	Element 3.2/3.9KW 220-240V/60/1-3	1
---	113988	Element 3.2/3.9KW 400-460V/60/3	1
---	113989	Element 3.2/3.9KW 575V/60/3	1
12	100280	Transformer 480-575V/60/3:120V	1
13	322891	Cover, box	1
14	113604	Thermostat, Fixed Snap 212°F	1
15	322892	Cover, box	1
16	113716	O-ring	2
17	113795	Plug	2
18	108620	Gasket	1
19	100156	Locknut	1
20	114021	Hose	1
21	206503	Tube Discharge RL	1
---	206501	Tube Discharge LR	1
22	114020	Hose	1
23	114020	Hose	1
24	110454	Nipple	1
25	107440	Elbow, 3/4" street	1
26	100537	Cross	1
27	105994	Clamp, hose	1
28	112531	Hose	1
29	601814	PVC pipe assy	1
30	112269	Clamp	1
31	0306618	Valve Drain	1
32	112269	Clamp	1
33	112351	Hose	1
34	329467	Bracket, drain valve	1
35	105993	Hose	1
36	601707	PVC piping Assy	1
37	100595	Reducer, Bushing	1
38	100537	Tee	1
39	0503588	O-ring, DR element	1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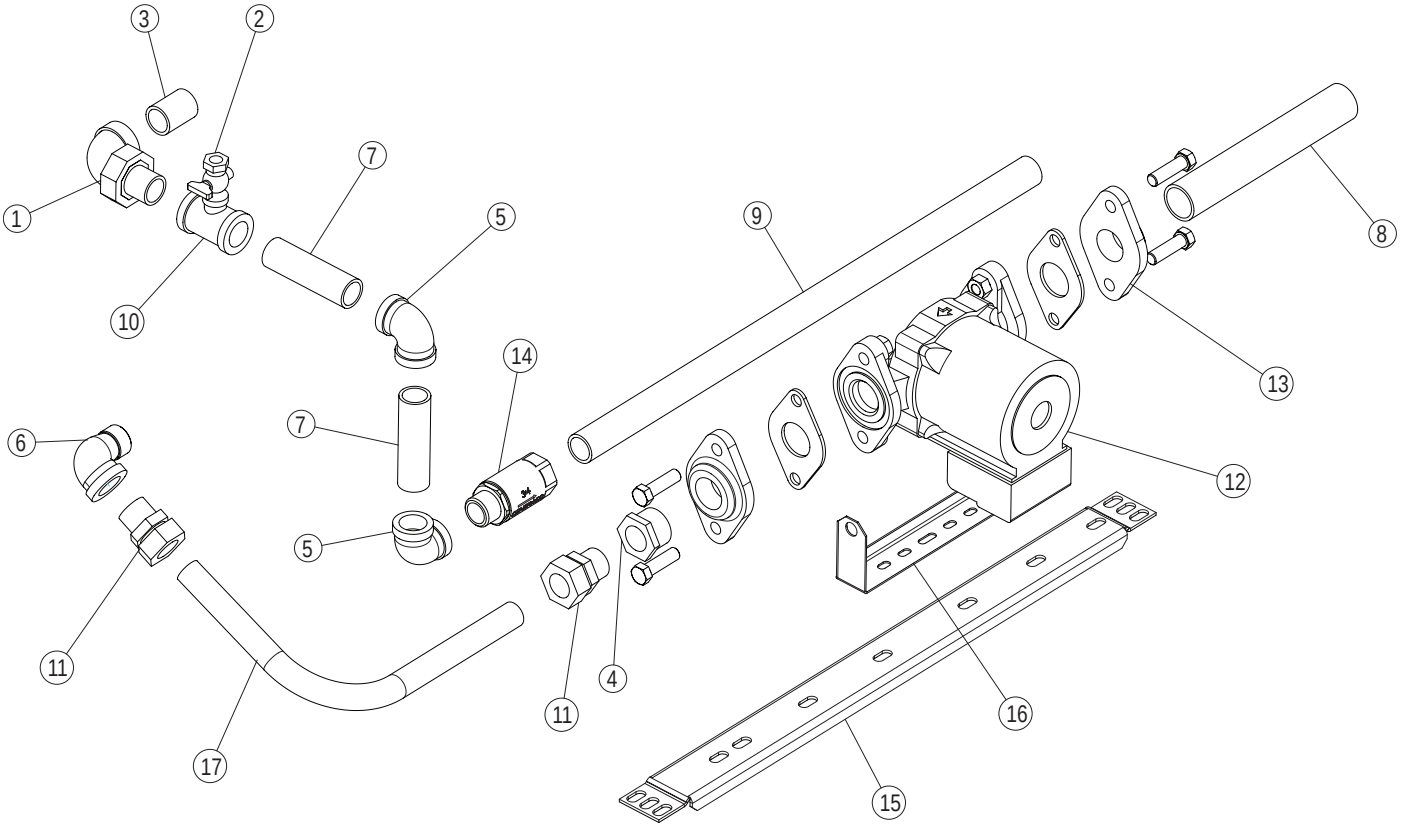
Item No.	Part No.	Description	Qty.
1	0502734	Stub Shaft	1
2	0502730	Seal Assembly (c/w spring)	1
3	0502729	Impeller	1
4	329281	Pump Housing	1
5	0501406	Screw, 8-32 x 1/2"	4
6	0501635	O-ring	1
7	0502732	Seal Screw, Housing	1
---	0502692	Pump Assembly, Complete (c/w motor and items 1-7)	1

(Motor is not available as a separate service part)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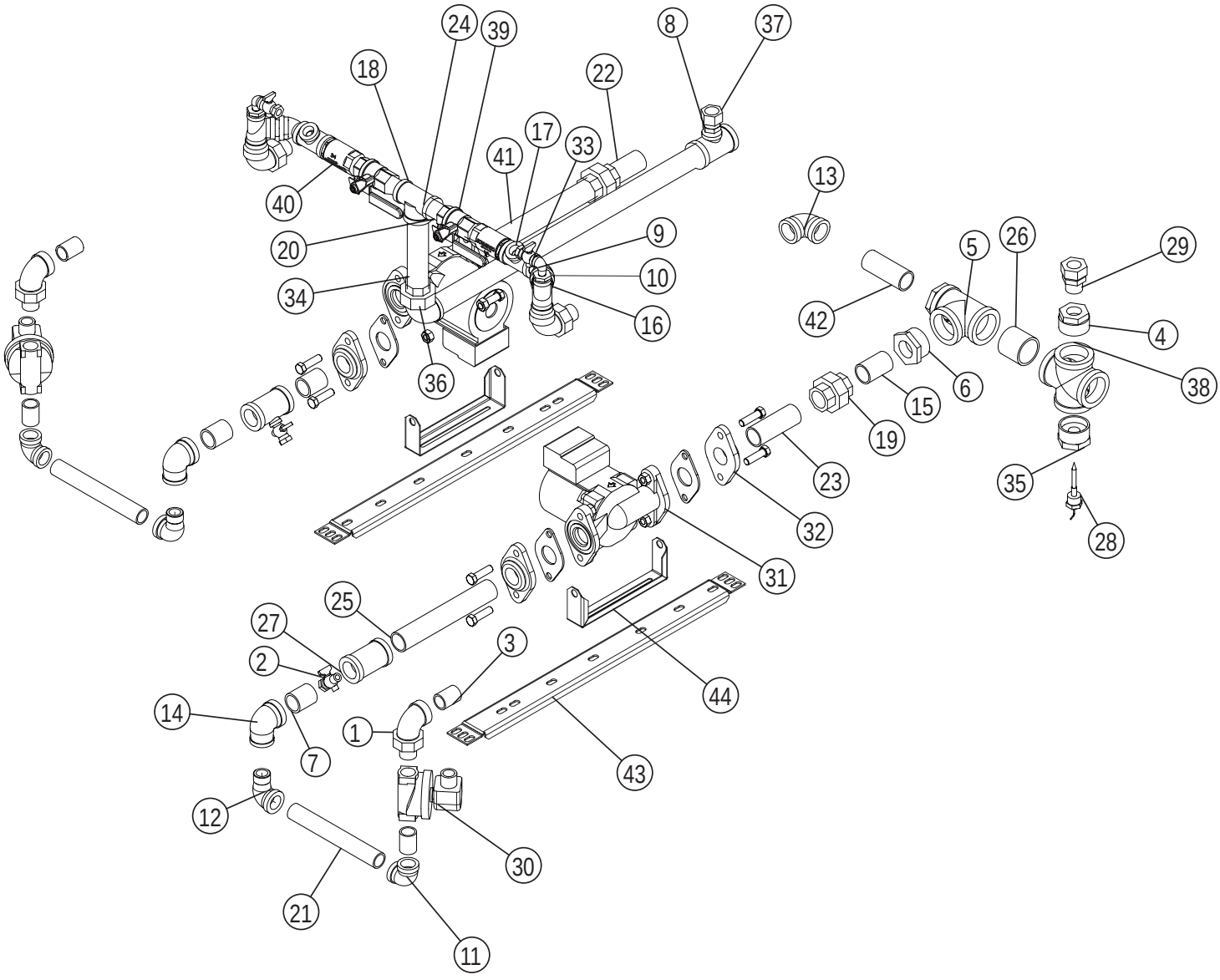
Item No.	Part No.	Description	Qty.
1	100118	Union Elbow, 3/4" NPT Male Brass	1
2	100123	Petcock 1/4" Female Brass	1
3	100184	Nipple, 3/4" NPT x Close Brass	1
4	102396	Bushing Reducing, 1" NPT x 3/4" NPT Brass	1
5	102396	Elbow 3/4" NPT x 90° Brass	2
6	102444	E;bp 34"NPT x 90° Brass	1
7	102490	Nipple 3/4" NPT x 3-1/2"Lg. Brass	2
8	102775	Nipple, 1" NPT, 8"Lg. Brass	1
9	103486	Nipple 3/4" NPT x 22" Lg. Brass	1
10	107418	Tee 3/4" x 3/4" 1/4" MPT Brass	1
11	109879	Fitting, Compression 7/8 OD x 3/4 MPT Brass	2
12	111854	Pump,HW Recirculator, Bronze	1
13	111860	Flange kit, 1" NPT Bronze Grundfoss	1
14	114463	Valve Check, 3/4MxF NPT Brass spring loaded ball	1
15	319273	Booster, Support, Channel	1
16	332841	Bracket, support, HW Coil Pump E-Rack	1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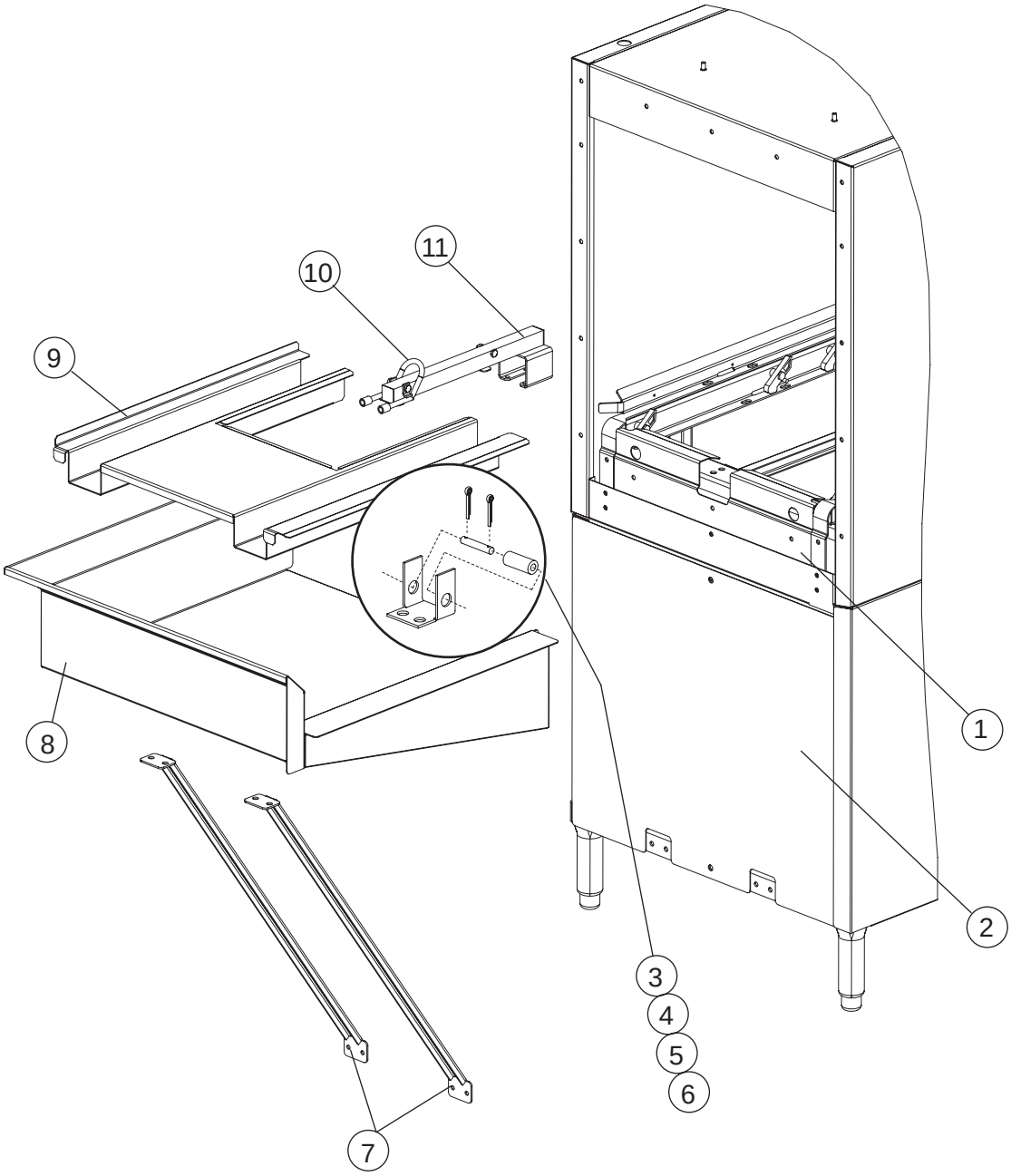
Item No.	Part No.	Description	Qty.
1	100118	Union Elbow, 3/4" NPT Male Brass	4
2	100123	Petcock 1/4" NPT Closs Brass	4
3	100184	Bushing , Reducing 1-1/2" NPT x 3/4" NPT Brass	10
4	100595	Tee, 1-1/2" NPT x Close Brass	1
5	100596	Tee, 1-1/2" NPT Brass	1
6	100613	Bushing Reducing, 1-1/2"NPT Brass	2
7	101100	Nipple, 1" NPT, Brass	3
8	101026	Tee, Red, 1" x 1" x 1/2" NPT Brass	1
9	101261	Elbow Street, 1/4" x NPT 90° Brass	2
10	102388	Bushing, Reducing 1/2" NPT x 1/4" NPT Brass	2
11	102442	Elbow 3/4" NPT x 90° Brass	2
12	102444	Elbow Street 3/4" NPT x 90° Brass	2
13	102448	Elbow 1" NPT x 90° Brass	2
14	102451	Elbow Reducing, 1"NPT X 3/4"NPT x 90° Brass	1
15	102472	Nipple, 1" NPT Brass	1
16	102525	Tee, Reducing 3/4" x 1/2" x 3/4" NPT Brass	2
17	102526	Tee, Reducing 3/4" x 3/4" X 1/2" NPT Brass	2
18	102527	Tee Reducing 3/4" x 3/4" x 1" NPT Brass	1
19	102551	Union, 1" NPT Brass	2
20	102651	Nipple, 3/4" NPT x 2" Lg. Brass	2
21	102666	Nipple 3/4" NPT 7-1/2" LG.	2
22	102761	Nipple 1" NPT x 3" Lg.	1
23	102762	Nipple 1"NPT x 3-1/2" Lg.	1
24	102771	Nipple 1"NPT x 6" Lg.	1
25	102775	Nipple 1" NPT x 8" Lg.	1
26	103554	Nipple, 1-12" x Close Brass	1
27	106709	Tee, Red 1" x 1" x 1/4" NPT Brass	2
28	107440	Thermostat w/capilliary	1
29	109789	Fitting, Comp 7/8 OD x 3/4"MPT Brass	1
30	109887	Valve Solenoid, 3/4" NPT Brass Steam	2
31	111854	Pump HW Recirculator Bronze	2
32	111860	Flange Kit 1" NPT Bronze Grundfoss Pump	2
33	113706	Elbow Street 3/4" x 45C Brass	1
34	113838	Union Elbow 3/4" 45 90° Brass	1
35	113839	Bushing Reducing 1-1/2" NPT Brass	1
36	114081	Nipple, 1" NPT x 24" Lg. Brass	1
37	114384	Fitting COmp 7/8 OD x 1/2 MPT Brass	1
38	114459	Cross 1-1/2" NPT Brass	1
39	114461	Valve Balll 3/4 FNPT Brass w/ setting indicator	2
40	114463	Valve Check 3/4" MxF NPT Brass spring loaded ball	2
41	114476	Nipple 1" NPT x 10-3/4" Lg. Brass	1
42	114477	Nipple, 1" NPT x 3-1/2" Lg. Brass	1
43	319273	Booster Support Channel	2
44	332841	Bracket Support HW Coil Pump E-Rack	2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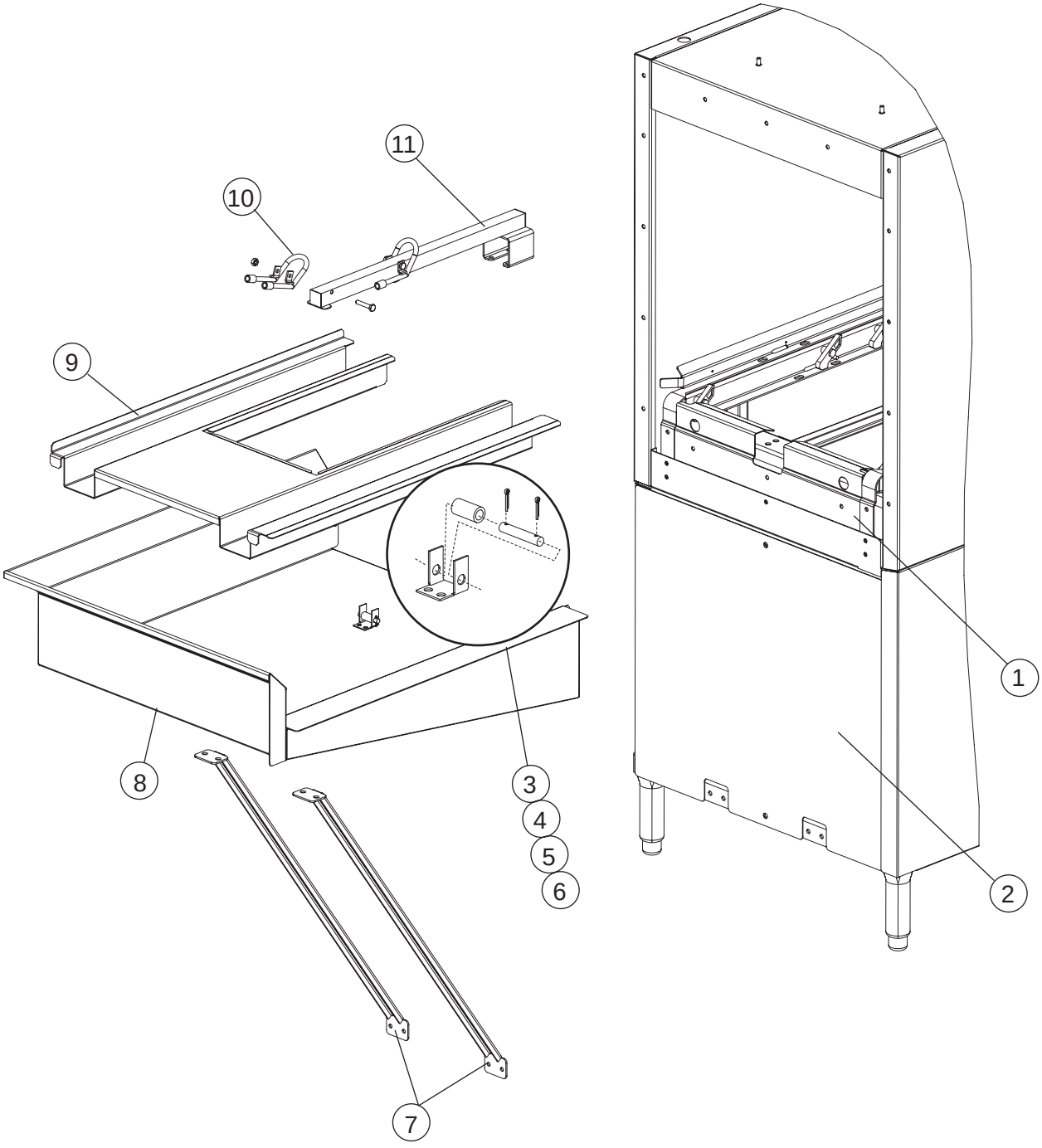
Item No.	Part No.	Description	Qty.
1	329927	Baffle, Sideloader	1
2	329352	Panel, End	1
3	312336	Bracket, Bar Support	1
4	312335	Pawl, Pin, Bar Support	1
5	109282	Spacer	1
6	108875	Pin, Cotter 3/32" x 1/2"	2
7	328955	Bracket Support, Sideloader	2
8	328941	24" L-R Sideloader	1
---	328942	24" R-L Sideloader	1
9	329317-1	24" Track, R-L Sideloader	1
---	329317-2	24" Track, L-R Sideloader	1
10	313598	Lever, Pawl	1
11	328914	Bar, Pawl 13-1/2" Lg.	1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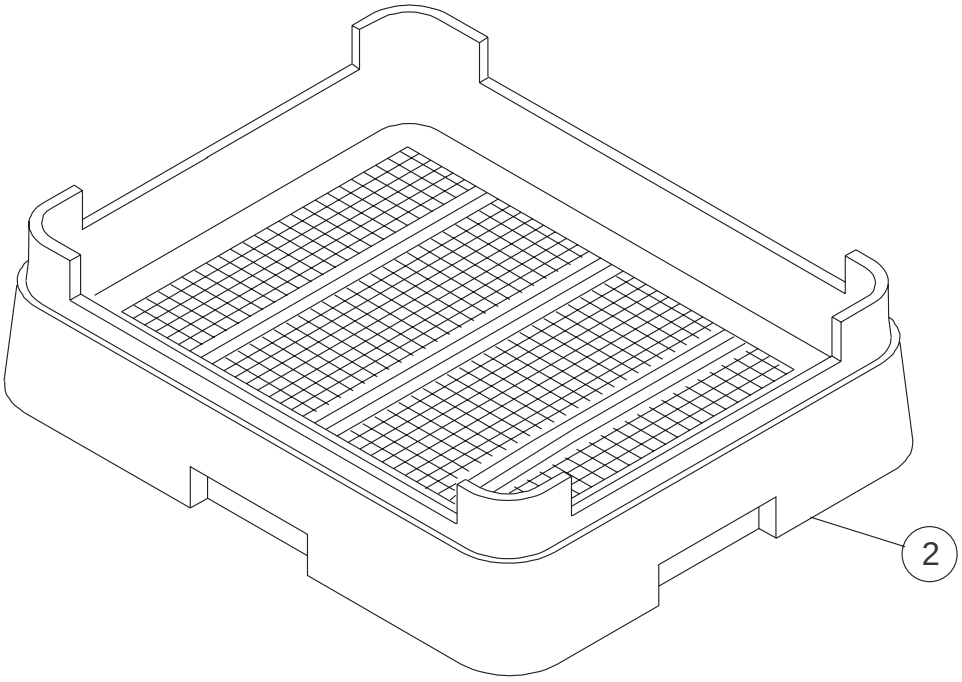
Item No.	Part No.	Description	Qty.
1	329927	Baffle, Sideloader	1
2	329352	Panel, End	1
3	312336	Bracket, Bar Support	2
4	312335	Pawl, Pin, Bar Support	2
5	109282	Spacer	2
6	108875	Pin, Cotter 3/32" x 1/2"	4
7	328955	Bracket Support, Sideloader	2
8	328943	30" L-R Sideloader	1
---	328944	30" R-L Sideloader	1
9	329318-1	30" Track, R-L Sideloader	1
---	329318-2	30" Track, L-R Sideloader	1
10	313598	Lever, Pawl	2
11	328915	Bar, Pawl 19-1/2" Lg.	1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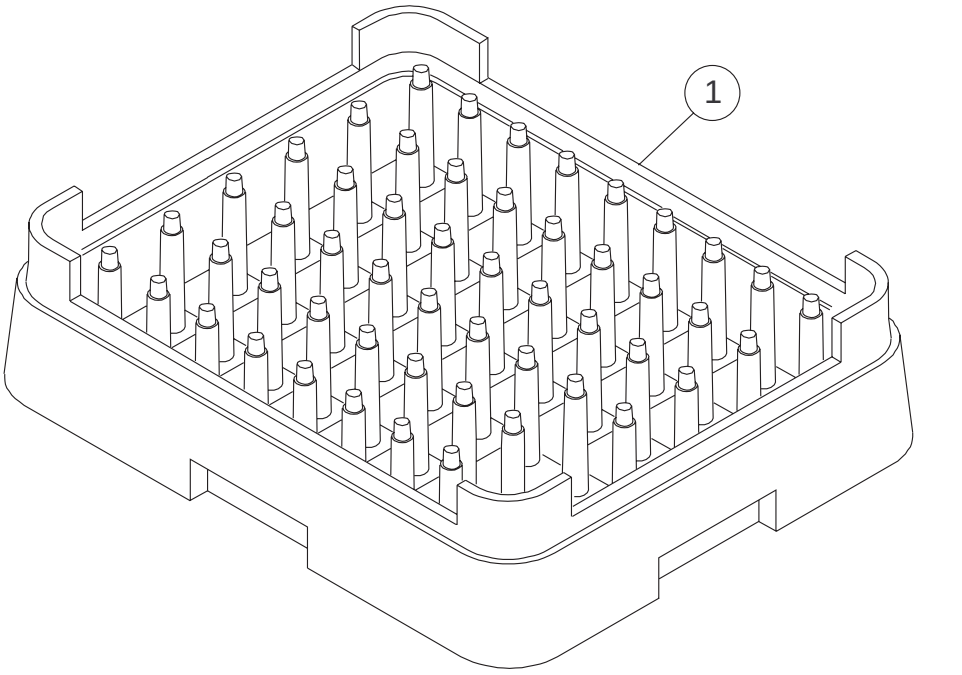
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Item No.	Part No.	Description	Qty.
1	101285	Rack Peg	1
2	101273	Rack Combination	1

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MODELS COVERED BY THIS DRAWING	
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44 LT	
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NOTES:

1. WHEN TABLE LIMIT SWITCH IS USED REMOVE JUMPER AND CONNECT LEADS BETWEEN WIRES 6 AND 44 ON TERMINAL BLOCK IN PANEL.
2. WHEN AN MRA TABLE IS USED CONNECT MRA JAM SWITCH TO WIRES 6 AND 7A IN JUNCTION BOX ON FRONT OF MACHINE.
3. USED FOR MACHINE RUNNING SIGNAL.
4. DRIVE MOTOR CONNECTED SINGLE PHASE FOR 200–240 VOLT MODELS.
5. ON MODELS WITH SIDE LOADER OPTION DRIVE MOTOR CONTACTOR 1M IS CONNECTED TO WIRE #45 INSTEAD OF WIRE #11.
6. ON MODELS WITH MULTIPLE ELECTRIC CONNECTIONS, MAKE HEATER POWER CONNECTIONS AT THE HEATER FUSE BLOCK.

1CR	RACK SWITCH RELAY
2CR	FINAL RINSE SWITCH RELAY
3CR	DOOR SAFETY SWITCH RELAY
5CR	WASH FILL RELAY
7CR	TABLE LIMIT SWITCH RELAY
1M	DRIVE MOTOR CONTACTOR
1MOL	DRIVE MOTOR OVERLOAD
3M	WASH MOTOR CONTACTOR
3MOL	WASH MOTOR OVERLOAD
5M	BLOWER MOTOR CONTACTOR
5MOL	BLOWER MOTOR OVERLOAD
AS	ARC SUPPRESSOR
BC–	BOOSTER CONTACTOR/STEAM VALVE
BDV	BLOWER DOOR SWITCH
BR	BOOSTER RELAY
BTR	BLOWER TIMER RELAY
BWR.SW.	BLOWER SWITCH
CR	HOLD–IN RELAY
FRSW	FINAL RINSE SWITCH
FU	FUSE/FUSE BLOCK
FV	FILL VALVE
HC–	HEAT CONTACTOR/STEAM VALVE
HLTS	HIGH LIMIT THERMOSTAT
JSW	JAM SWITCH
PCB	POWER SWITCH/CIRCUIT BREAKER
RSW	RACK SWITCH
RV	RINSE VALVE
T1	CONTROL TRANSFORMER
TB1	BLOWER TIMER
TLS	TABLE LIMIT SWITCH
TR1	IDLE PUMP TIMER
TS	THERMOSTAT
W	WASH DOOR SWITCH
WFSW	WASH TANK FLOAT SWITCH

RELAY

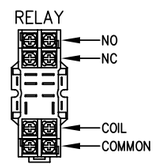
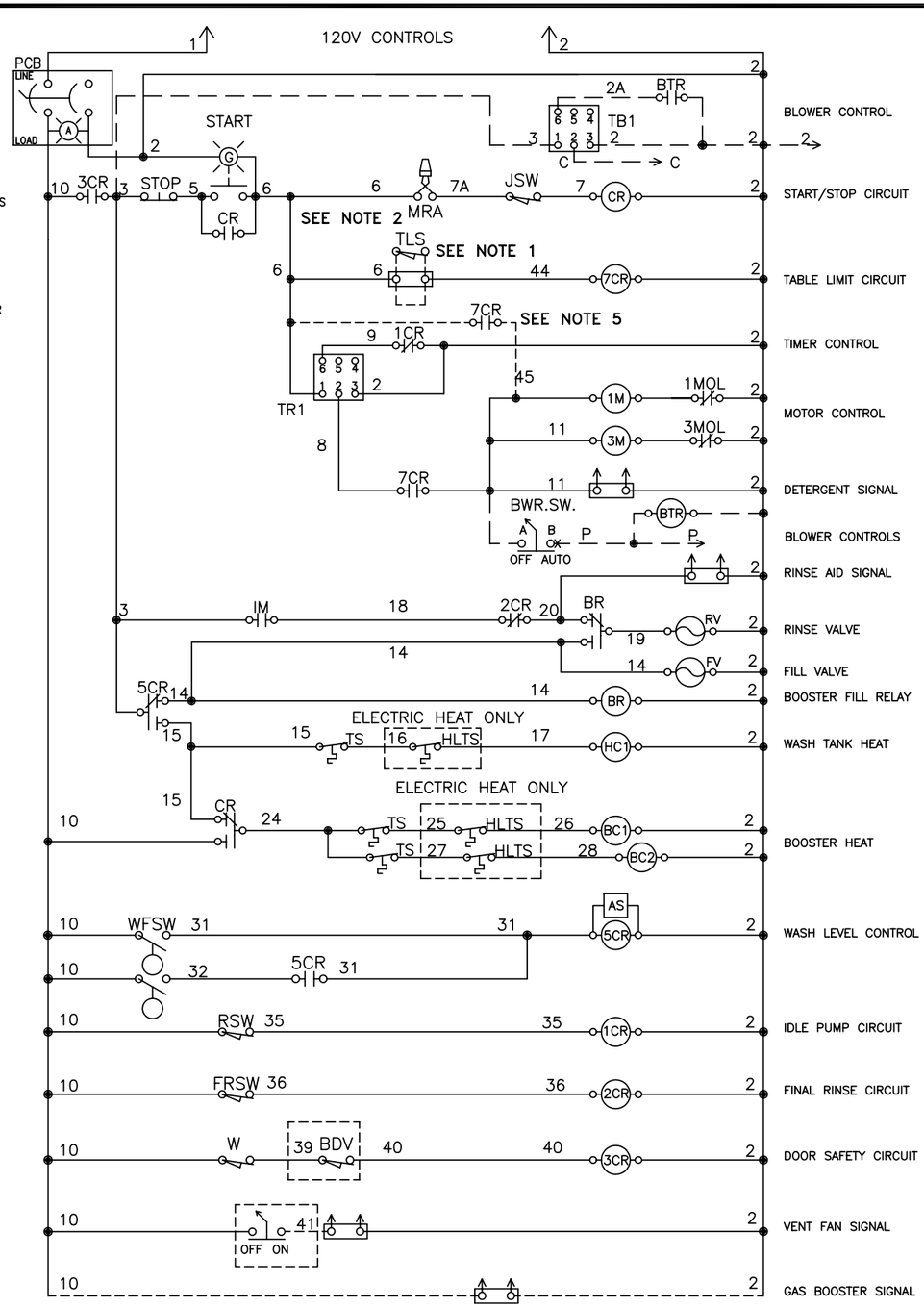
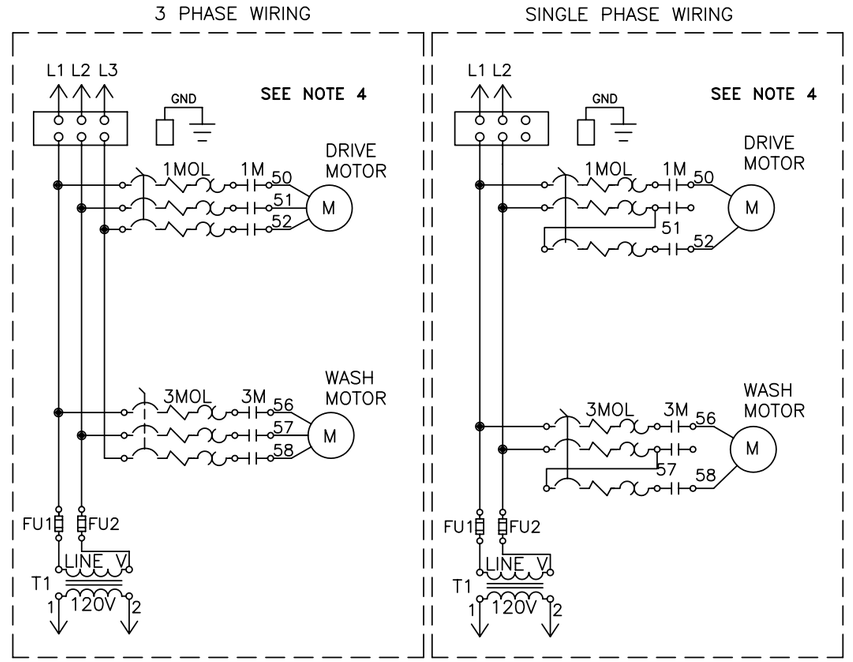
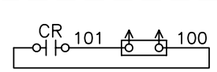


DIAGRAM STATE
POWER OFF
DOORS CLOSED
TANKS EMPTY

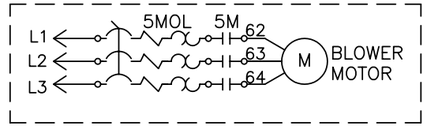




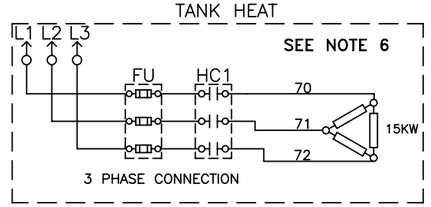


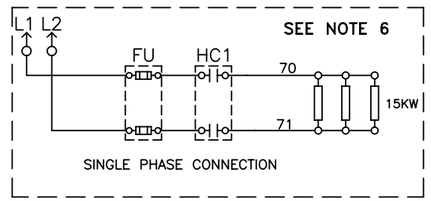
SEE NOTE 3
MACHINE RUNNING SIGNAL

BLOWER/DRYER MOTOR



TANK HEAT





CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER,TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR.BY	J.MCALLISTER	SCALE	NONE
DATE	17OCT03	SHEET 1 OF 1	

REV.	DESCRIPTION	DATE	BY
B	REMOVED JUMPER FOR BR RELAY	9AUG04	JAM
C	ADDED NOTE 5 ADDED WIRING FOR SIDELOADER	27SEP04	JAM
D	MOVED TABLE LIMIT CIRCUIT	1DEC04	JAM

REV.	DESCRIPTION	DATE	BY
E	MOVED RINSE AID CIRCUIT	5JAN05	JAM
F	MODIFIED BLOWER CONTROLS, MRA CONNECTION, NOTES 1 AND 2	7AUG06	JAM
G	MODIFIED BLOWER CONTROLS	14DEC06	JAM

Champion
The Dishwashing Machine Specialists

SINGLE TANK RACK CONVEYOR
STEAM/ELECTRIC HEAT

B 701820 REV. G

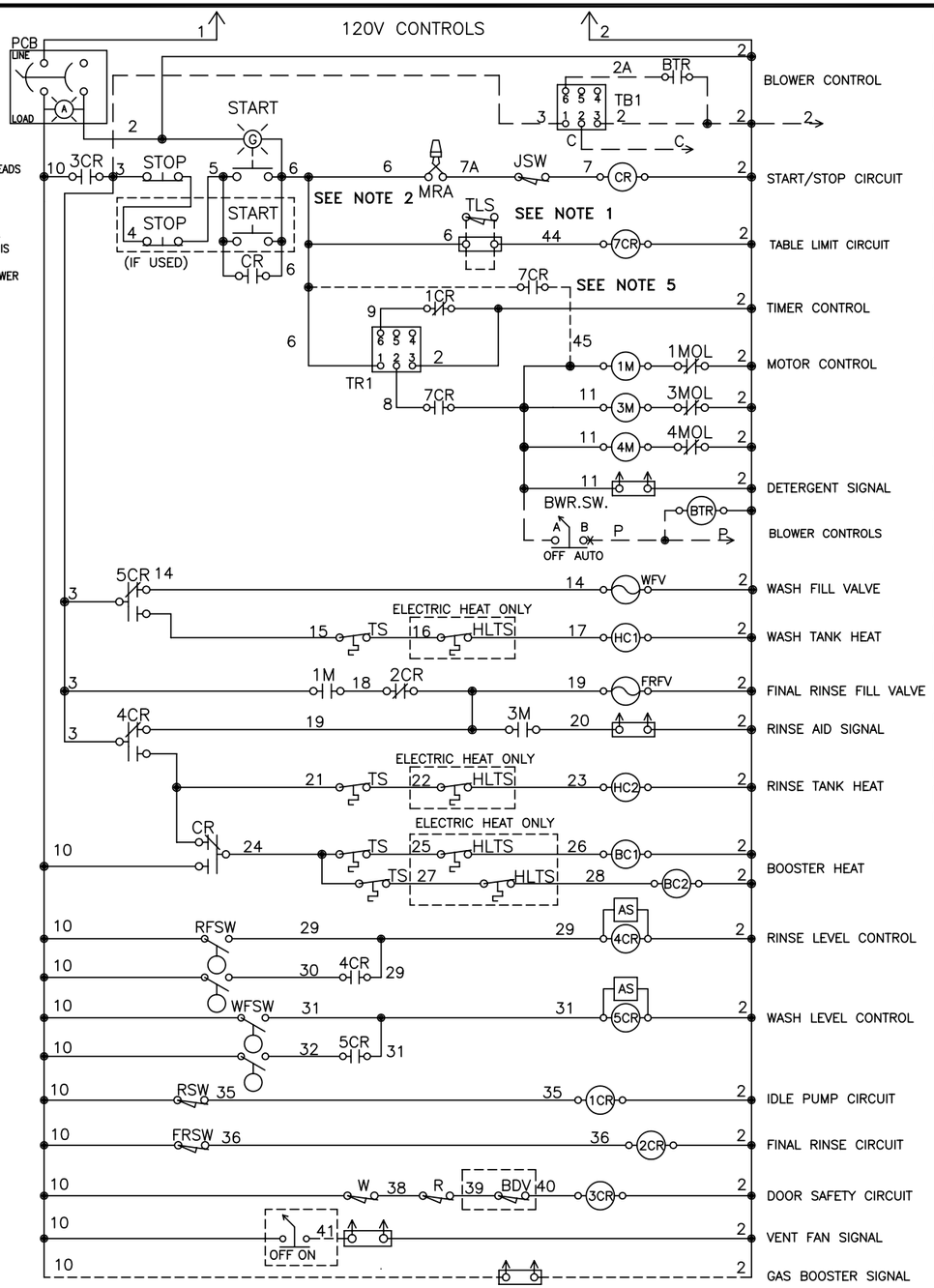
**

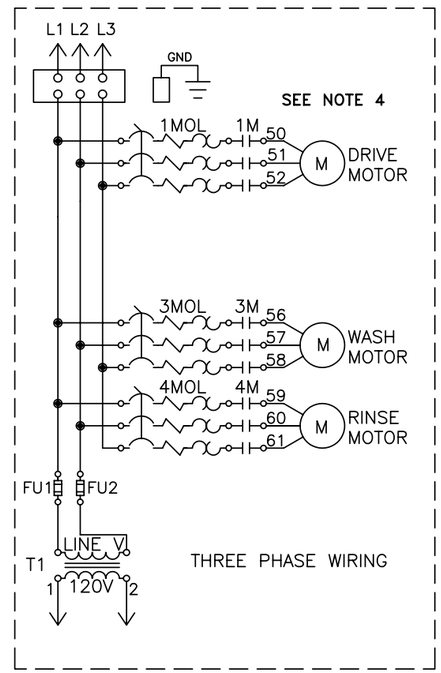
MODELS COVERED BY THIS DRAWING	
64	
72	
84	

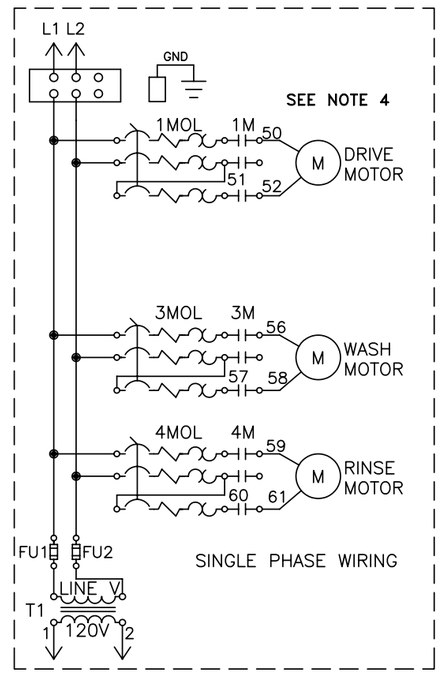
NOTES:

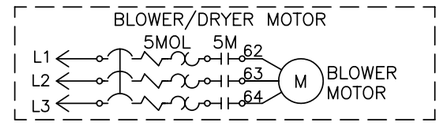
1. WHEN TABLE LIMIT SWITCH IS USED REMOVE JUMPER AND CONNECT LEADS BETWEEN WIRES 6 AND 44 ON TERMINAL BLOCK IN PANEL.
2. WHEN AN MRA TABLE IS USED CONNECT MRA JAM SWITCH TO WIRES 6 AND 7A IN JUNCTION BOX ON FRONT OF MACHINE.
3. USED FOR MACHINE RUNNING SIGNAL.
4. DRIVE MOTOR CONNECTED SINGLE PHASE FOR 200–240 VOLT MODELS.
5. ON MODELS WITH SIDE LOADER OPTION DRIVE MOTOR CONTACTOR 1M IS CONNECTED TO WIRE #45 INSTEAD OF WIRE #11.
6. ON MODELS WITH MULTIPLE ELECTRIC CONNECTIONS, MAKE HEATER POWER CONNECTIONS AT THE HEATER FUSE BLOCK.

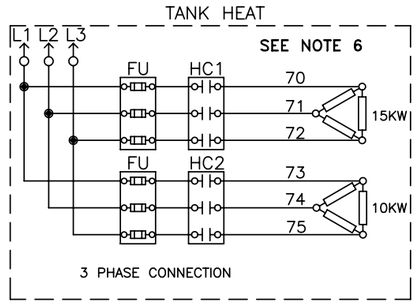
1CR	RACK SWITCH RELAY
2CR	FINAL RINSE SWITCH RELAY
3CR	DOOR SAFETY SWITCH RELAY
4CR	RINSE FILL RELAY
5CR	WASH FILL RELAY
7CR	TABLE LIMIT SWITCH RELAY
1M	DRIVE MOTOR CONTACTOR
1MOL	DRIVE MOTOR OVERLOAD
3M	WASH MOTOR CONTACTOR
3MOL	WASH MOTOR OVERLOAD
4M	RINSE MOTOR CONTACTOR
4MOL	RINSE MOTOR OVERLOAD
5M	BLOWER MOTOR CONTACTOR
5MOL	BLOWER MOTOR OVERLOAD
AS	ARC SUPPRESSOR
BC–	BOOSTER CONTACTOR/STEAM VALVE
BDV	BLOWER DOOR SWITCH
BR	BOOSTER RELAY
BTR	BLOWER TIMER RELAY
BWR.SW.	BLOWER SWITCH
CR	HOLD–IN RELAY
FRFV	FINAL RINSE FILL VALVE
FRSW	FINAL RINSE SWITCH
FU_	FUSE
HC–	HEAT CONTACTOR/STEAM VALVE
HLTS	HIGH LIMIT THERMOSTAT
JSW	JAM SWITCH
PCB	POWER SWITCH/CIRCUIT BREAKER
R	RINSE DOOR SWITCH
RFSW	RINSE TANK FLOAT SWITCH
RSW	RACK SWITCH
T1	CONTROL TRANSFORMER
TB1	BLOWER TIMER
TLS	TABLE LIMIT SWITCH
TR1	IDLE PUMP TIMER
TS	THERMOSTAT
W	WASH DOOR SWITCH
WFSW	WASH TANK FLOAT SWITCH
WFV	WASH FILL VALVE

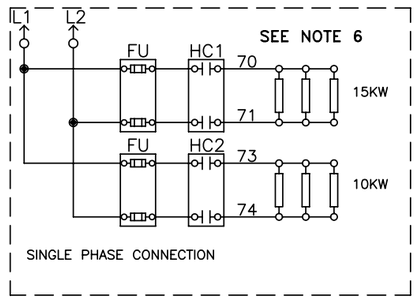












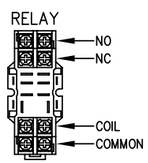


DIAGRAM STATE
POWER OFF
DOORS CLOSED
TANKS EMPTY

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER,TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR.BY	J.MCALLISTER	SCALE	NONE
DATE	24OCT03	SHEET 1 OF 1	

REV.	DESCRIPTION	DATE	BY
A	REVISED NOTES TO INCLUDE TLS WIRE LOCATION	14JUN04	JAM
B	ADDED NOTE 5 ADDED WIRING FOR SIDELOADER	27SEP04	JAM
C	MOVED TABLE LIMIT SWITCH CIRCUIT	02DEC04	JAM

REV.	DESCRIPTION	DATE	BY
D	MODIFIED BLOWER CONTROLS, MRA CIRCUIT, NOTES 1 AND 2	08JUL06	JAM
E	MODIFIED BLOWER CONTROLS	8DEC06	JAM

Champion
The Dishwashing Machine Specialists

TWO TANK RACK CONVEYOR
STEAM/ELECTRIC HEAT

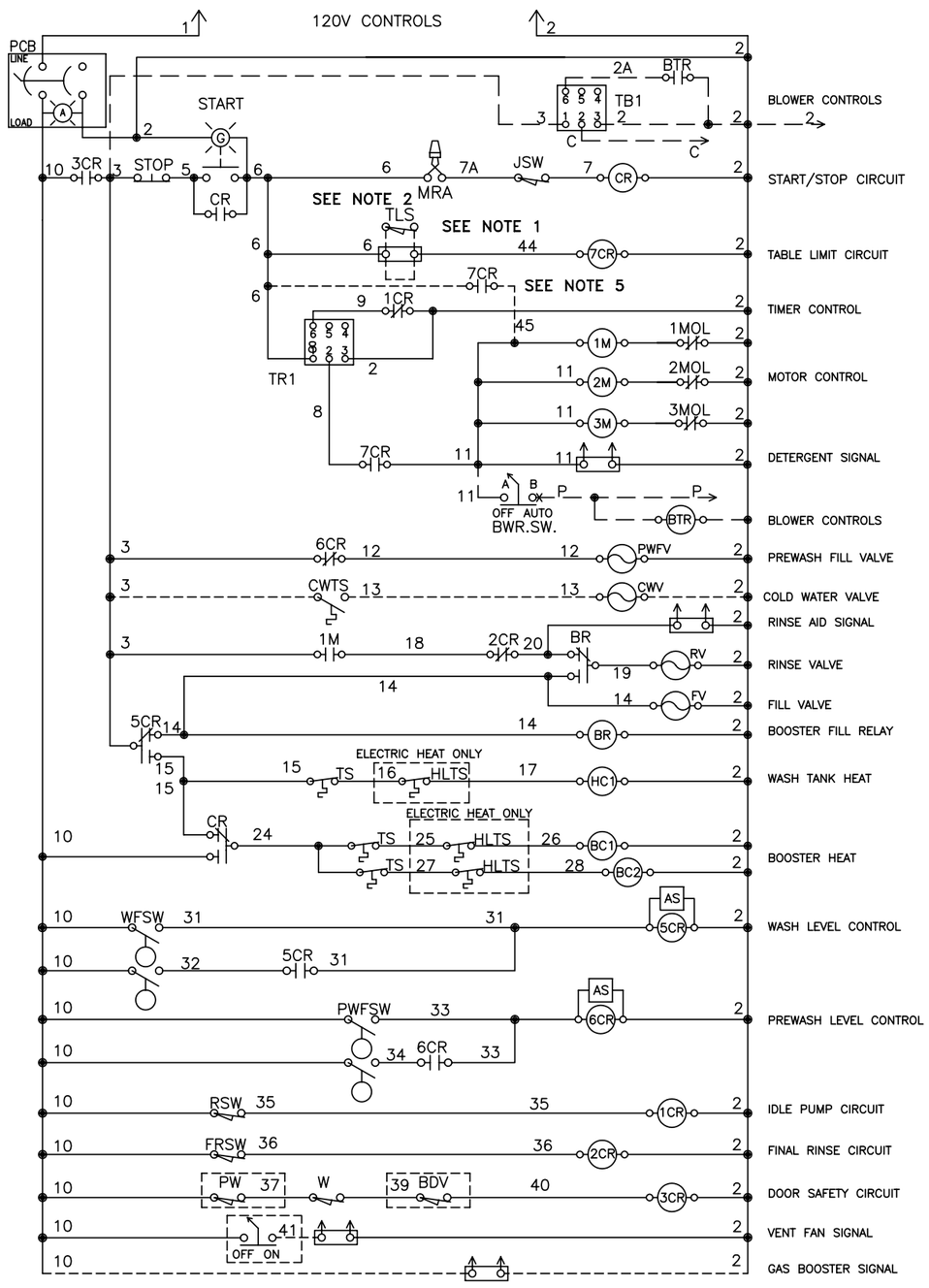
B 701827 REV. E

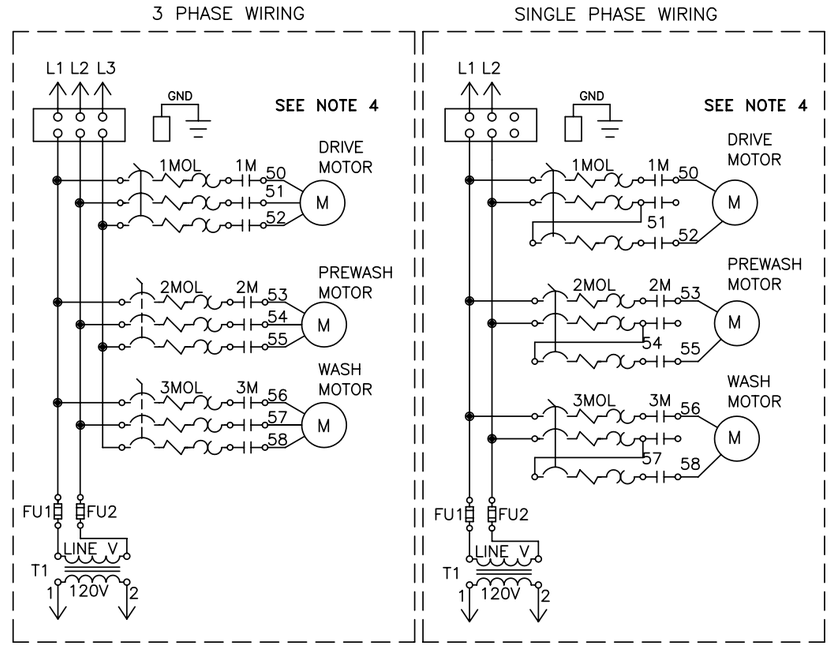
MODELS COVERED BY THIS DRAWING	
66 PW	80 LT HDPW
70 FFPW	76 PW
80 HDPW	80 FFPW
66 LT PW	90 HDPW
70 LT FFPW	

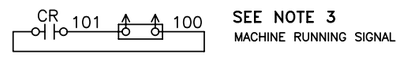
NOTES:

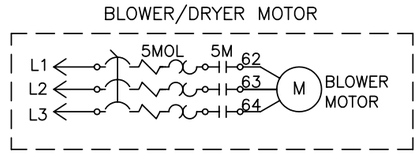
1. WHEN TABLE LIMIT SWITCH IS USED REMOVE JUMPER AND CONNECT LEADS BETWEEN WIRES 6 AND 44 ON TERMINAL BLOCK IN PANEL.
2. WHEN AN MRA TABLE IS USED CONNECT MRA JAM SWITCH TO WIRES 6 AND 7A IN JUNCTION BOX ON FRONT OF MACHINE.
3. USED FOR MACHINE RUNNING SIGNAL.
4. DRIVE MOTOR CONNECTED SINGLE PHASE FOR 200–240 VOLT MODELS.
5. ON MODELS WITH SIDE LOADER OPTION DRIVE MOTOR CONTACTOR 1M IS CONNECTED TO WIRE #45 INSTEAD OF WIRE #11.
6. ON MODELS WITH MULTIPLE ELECTRIC CONNECTIONS, MAKE HEATER POWER CONNECTIONS AT THE HEATER FUSE BLOCK.

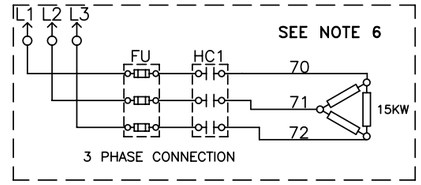
1CR	RACK SWITCH RELAY
2CR	FINAL RINSE SWITCH RELAY
3CR	DOOR SAFETY SWITCH RELAY
5CR	WASH FILL RELAY
6CR	PREWASH FILL RELAY
7CR	TABLE LIMIT SWITCH RELAY
1M	DRIVE MOTOR CONTACTOR
1MOL	DRIVE MOTOR OVERLOAD
2M	PREWASH MOTOR CONTACTOR
2MOL	PREWASH MOTOR OVERLOAD
3M	WASH MOTOR CONTACTOR
3MOL	WASH MOTOR OVERLOAD
5M	BLOWER MOTOR CONTACTOR
5MOL	BLOWER MOTOR OVERLOAD
AS	ARC SUPPRESSOR
BC–	BOOSTER CONTACTOR/STEAM VALVE
BDV	BLOWER DOOR SWITCH
BR	BOOSTER RELAY
BTR	BLOWER TIMER RELAY
BWR.SW.	BLOWER SWITCH
CR	HOLD–IN RELAY
CWTS	COLD WATER THERMOSTAT
CWV	COLD WATER VALVE
FRSW	FINAL RINSE SWITCH
FU	FUSE/FUSE BLOCK
FV	FILL VALVE
HC–	HEAT CONTACTOR/STEAM VALVE/ HOT WATER PUMP
HLTS	HIGH LIMIT THERMOSTAT
JSW	JAM SWITCH
PCB	POWER SWITCH/CIRCUIT BREAKER
PW	PREWASH DOOR SWITCH
PWFV	PREWASH FILL VALVE
PWFSW	PREWASH TANK FLOAT SWITCH
RSW	RACK SWITCH
RV	RINSE VALVE
T1	CONTROL TRANSFORMER
TB1	BLOWER TIMER
TLS	TABLE LIMIT SWITCH
TR1	IDLE PUMP TIMER
TS	THERMOSTAT
W	WASH DOOR SWITCH
WFSW	WASH TANK FLOAT SWITCH

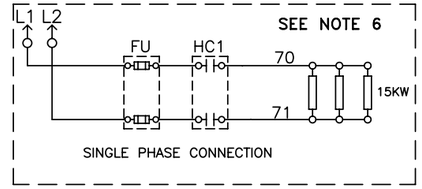












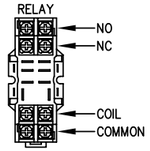


DIAGRAM STATE
POWER OFF
DOORS CLOSED
TANKS EMPTY

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER,TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR.BY	J.MCALLISTER	SCALE	NONE
DATE	17OCT03	SHEET	1 OF 1

REV.	DESCRIPTION	DATE	BY
A	REVISED NOTES TO INCLUDE TLS WIRE LOCATION	14JUN04	JAM
B	ADDED NOTE 5 ADDED WIRING FOR SIDELOADER	27SEP04	JAM
C	MOVED TABLE LIMIT CIRCUIT	1DEC04	JAM

REV.	DESCRIPTION	DATE	BY
D	MOVED CWTS AND PREWASH FILL CIRCUIT	5JAN05	JAM
E	MODIFIED BLOWER CONTROLS, MRA CONNECTIONS, NOTES 1 AND 2	08AUG06	JAM
F	MODIFIED BLOWER CONTROLS, ADDED BTR RELAY	20OCT06	JAM

Champion
The Dishwashing Machine Specialists

SINGLE TANK RACK CONVEYOR WITH PREWASH, STEAM/ELECTRIC/HOT WATER HEAT

B 701831 REV. F

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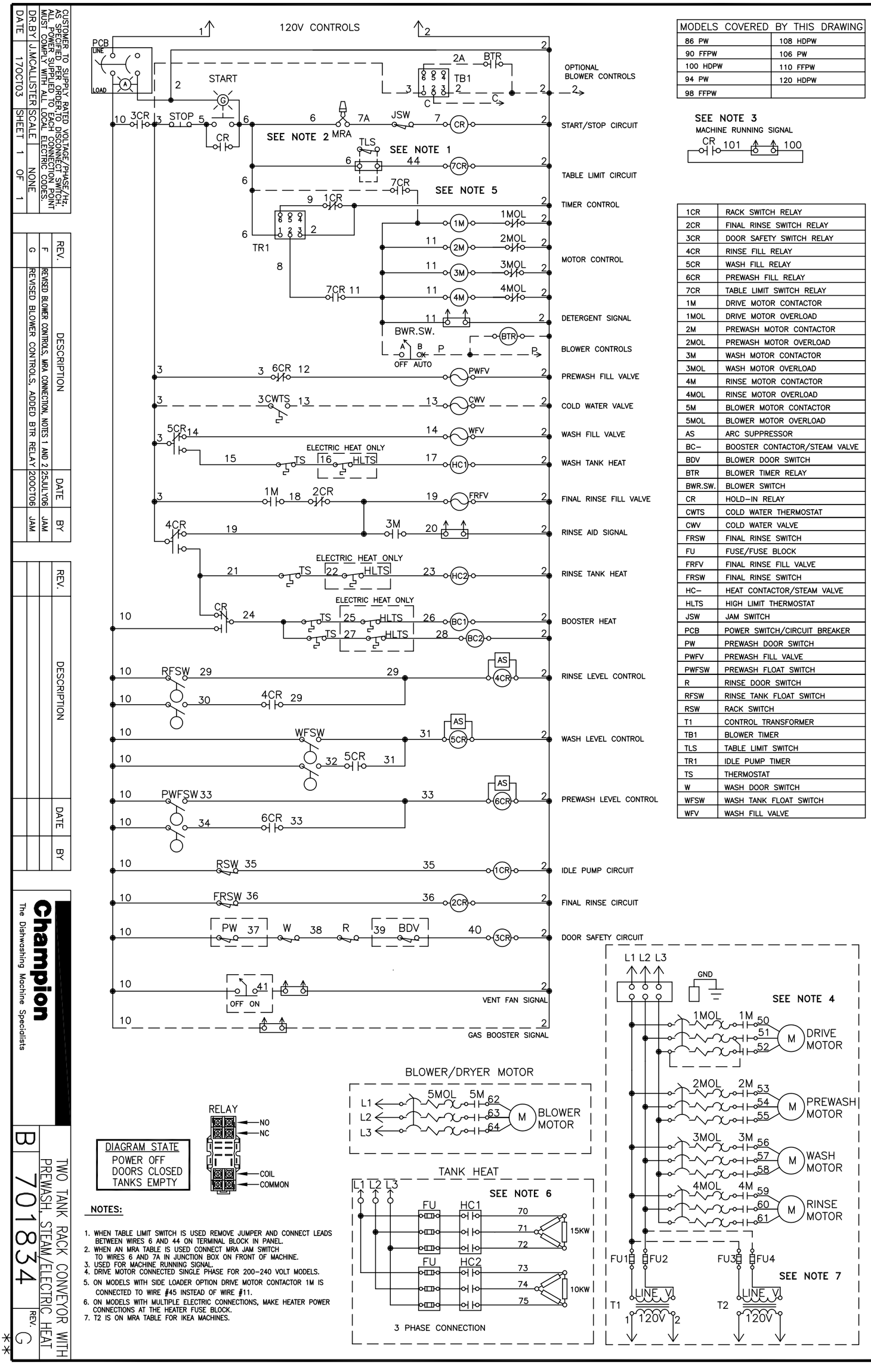


MODELS COVERED BY THIS DRAWING	
86 PW	108 HDPW
90 FFPW	106 PW
100 HDPW	110 FFPW
94 PW	120 HDPW
98 FFPW	

SEE NOTE 3
MACHINE RUNNING SIGNAL

1CR	RACK SWITCH RELAY
2CR	FINAL RINSE SWITCH RELAY
3CR	DOOR SAFETY SWITCH RELAY
4CR	RINSE FILL RELAY
5CR	WASH FILL RELAY
6CR	PREWASH FILL RELAY
7CR	TABLE LIMIT SWITCH RELAY
1M	DRIVE MOTOR CONTACTOR
1MOL	DRIVE MOTOR OVERLOAD
2M	PREWASH MOTOR CONTACTOR
2MOL	PREWASH MOTOR OVERLOAD
3M	WASH MOTOR CONTACTOR
3MOL	WASH MOTOR OVERLOAD
4M	RINSE MOTOR CONTACTOR
4MOL	RINSE MOTOR OVERLOAD
5M	BLOWER MOTOR CONTACTOR
5MOL	BLOWER MOTOR OVERLOAD
AS	ARC SUPPRESSOR
BC–	BOOSTER CONTACTOR/STEAM VALVE
BDV	BLOWER DOOR SWITCH
BTR	BLOWER TIMER RELAY
BWR.SW.	BLOWER SWITCH
CR	HOLD–IN RELAY
CWTS	COLD WATER THERMOSTAT
CWV	COLD WATER VALVE
FRSW	FINAL RINSE SWITCH
FU	FUSE/FUSE BLOCK
FRFV	FINAL RINSE FILL VALVE
FRSW	FINAL RINSE SWITCH
HC–	HEAT CONTACTOR/STEAM VALVE
HLTS	HIGH LIMIT THERMOSTAT
JSW	JAM SWITCH
PCB	POWER SWITCH/CIRCUIT BREAKER
PW	PREWASH DOOR SWITCH
PWFV	PREWASH FILL VALVE
PWFSW	PREWASH FLOAT SWITCH
R	RINSE DOOR SWITCH
RFSW	RINSE TANK FLOAT SWITCH
RSW	RACK SWITCH
T1	CONTROL TRANSFORMER
TB1	BLOWER TIMER
TLS	TABLE LIMIT SWITCH
TR1	IDLE PUMP TIMER
TS	THERMOSTAT
W	WASH DOOR SWITCH
WFSW	WASH TANK FLOAT SWITCH
WFV	WASH FILL VALVE

DIAGRAM STATE
POWER OFF
DOORS CLOSED
TANKS EMPTY

NOTES:

1. WHEN TABLE LIMIT SWITCH IS USED REMOVE JUMPER AND CONNECT LEADS BETWEEN WIRES 6 AND 44 ON TERMINAL BLOCK IN PANEL.
2. WHEN AN MRA TABLE IS USED CONNECT MRA JAM SWITCH TO WIRES 6 AND 7A IN JUNCTION BOX ON FRONT OF MACHINE.
3. USED FOR MACHINE RUNNING SIGNAL.
4. DRIVE MOTOR CONNECTED SINGLE PHASE FOR 200–240 VOLT MODELS.
5. ON MODELS WITH SIDE LOADER OPTION DRIVE MOTOR CONTACTOR 1M IS CONNECTED TO WIRE #45 INSTEAD OF WIRE #11.
6. ON MODELS WITH MULTIPLE ELECTRIC CONNECTIONS, MAKE HEATER POWER CONNECTIONS AT THE HEATER FUSE BLOCK.
7. T2 IS ON MRA TABLE FOR IKEA MACHINES.

REV.	DESCRIPTION	DATE	BY
G	REVISED BLOWER CONTROLS, MRA CONNECTION, NOTES 1 AND 2	25JUL'06	JAM
F	REVISED BLOWER CONTROLS, ADDED BTR RELAY	20OCT06	JAM

REV.	DESCRIPTION	DATE	BY

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz. AS SPECIFIED ON NAMEPLATE. ALL POWER SUPPLY CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES

DR.BY	J.MCALLISTER
DATE	17OCT03
SCALE	NONE
SHEET	1 OF 1

Champion
The Dishwashing Machine Specialists

TWO TANK RACK CONVEYOR WITH PREWASH, STEAM/ELECTRIC HEAT

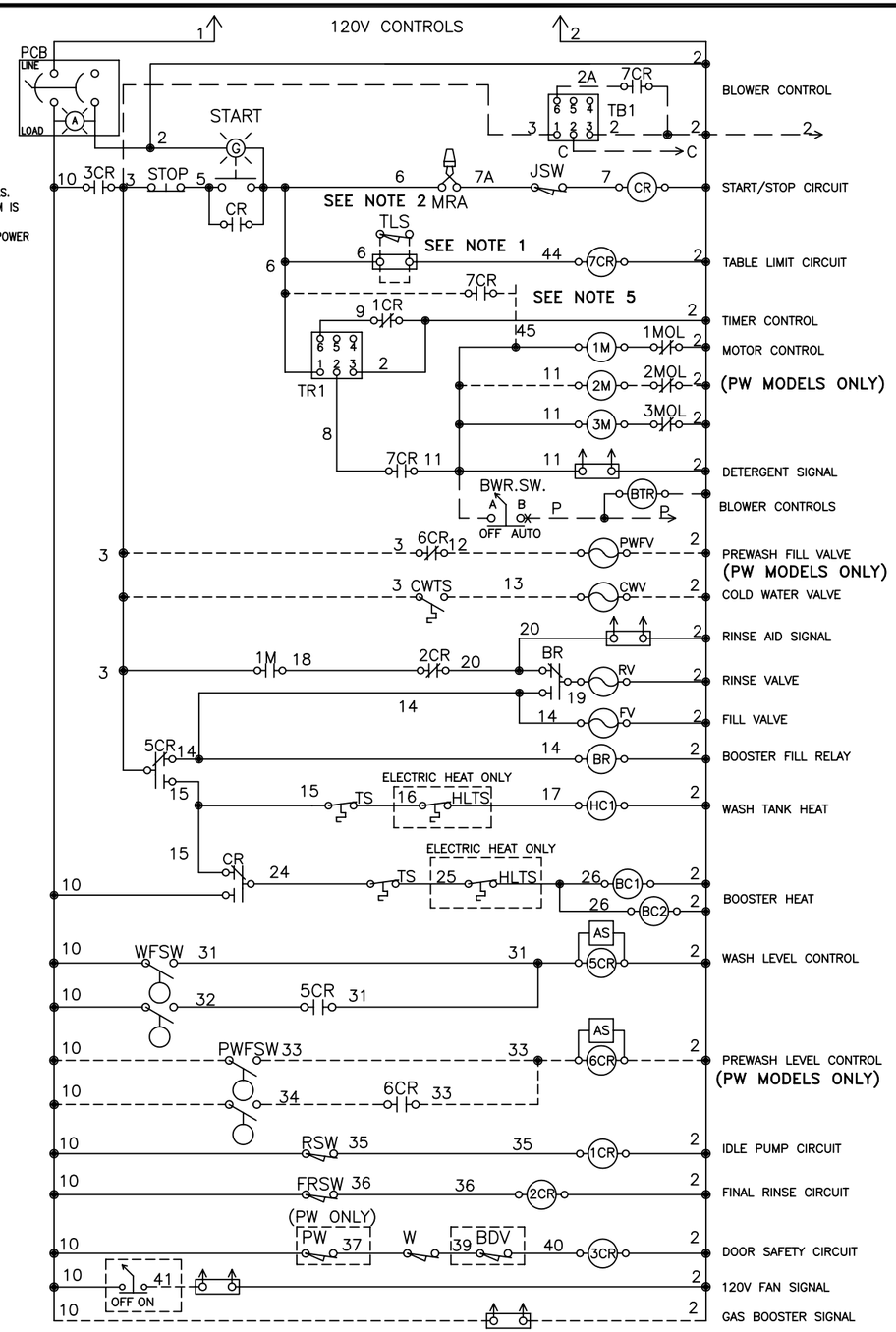
B 701834 REV. G

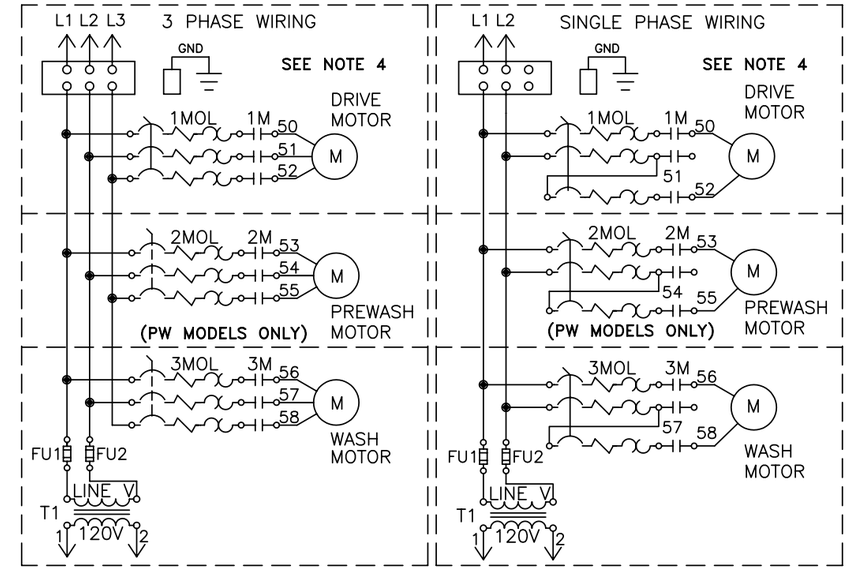
MODELS COVERED BY THIS DRAWING	
44 WS	70 WS FFPW
66 WS PW	80 WS HDPW

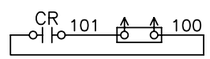
NOTES:

1. WHEN TABLE LIMIT SWITCH IS USED REMOVE JUMPER AND CONNECT LEADS BETWEEN WIRES 6 AND 44 ON TERMINAL BLOCK IN PANEL.
2. WHEN AN MRA TABLE IS USED CONNECT MRA JAM SWITCH TO WIRES 6 AND 7A IN JUNCTION BOX ON FRONT OF MACHINE.
3. USED FOR MACHINE RUNNING SIGNAL.
4. DRIVE MOTOR CONNECTED SINGLE PHASE FOR 200–240 VOLT MODELS.
5. ON MODELS WITH SIDE LOADER OPTION DRIVE MOTOR CONTACTOR 1M IS CONNECTED TO WIRE #45 INSTEAD OF WIRE #11.
6. ON MODELS WITH MULTIPLE ELECTRIC CONNECTIONS, MAKE HEATER POWER CONNECTIONS AT THE HEATER FUSE BLOCK.

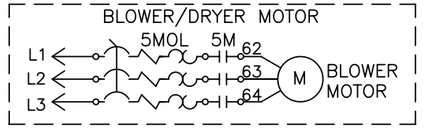
1CR	RACK SWITCH RELAY
2CR	FINAL RINSE SWITCH RELAY
3CR	DOOR SAFETY SWITCH RELAY
5CR	WASH FILL RELAY
6CR	PREWASH FILL RELAY
7CR	TABLE LIMIT SWITCH RELAY
1M	DRIVE MOTOR CONTACTOR
1MOL	DRIVE MOTOR OVERLOAD
2M	PREWASH MOTOR CONTACTOR
2MOL	PREWASH MOTOR OVERLOAD
3M	WASH MOTOR CONTACTOR
3MOL	WASH MOTOR OVERLOAD
5M	BLOWER MOTOR CONTACTOR
5MOL	BLOWER MOTOR OVERLOAD
AS	ARC SUPPRESSOR
BC–	BOOSTER CONTACTOR/STEAM VALVE
BDV	BLOWER DOOR SWITCH
BR	BOOSTER RELAY
BTR	BLOWER TIMER RELAY
BWR.SW.	BLOWER SWITCH
CR	HOLD–IN RELAY
CWTS	COLD WATER THERMOSTAT
CWV	COLD WATER VALVE
FRSW	FINAL RINSE SWITCH
FU	FUSE/FUSE BLOCK
FV	FILL VALVE
HC–	HEAT CONT./STM VALVE/CIRC PUMP
HLTS	HIGH LIMIT THERMOSTAT
JSW	JAM SWITCH
PCB	POWER SWITCH/CIRCUIT BREAKER
PW	PREWASH DOOR SWITCH
PWFSW	PREWASH FLOAT SWITCH
PWFV	PREWASH FILL VALVE
RSW	RACK SWITCH
RV	RINSE VALVE
T1	CONTROL TRANSFORMER
TB1	BLOWER TIMER
TLS	TABLE LIMIT SWITCH
TR1	IDLE PUMP TIMER
TS	THERMOSTAT
W	WASH DOOR SWITCH
WFSW	WASH TANK FLOAT SWITCH

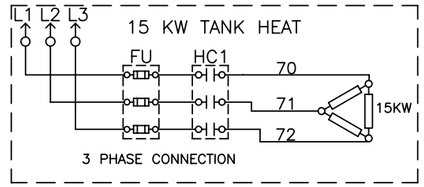






SEE NOTE 3
MACHINE RUNNING SIGNAL





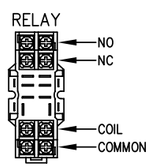


DIAGRAM STATE
POWER OFF
DOORS CLOSED
TANKS EMPTY

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER,TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR.BY	J.MCALLISTER	SCALE	NONE
DATE	10FEB04	SHEET	1 OF 1

REV.	DESCRIPTION	DATE	BY
A	REVISED NOTES TO INCLUDE TLS WIRE LOCATION	14JUN04	JAM
B	ADDED NOTE 5 ADDED WIRING FOR SIDELOADER	27SEP04	JAM
C	MOVED TABLE LIMIT SWITCH CIRCUIT	02DEC04	JAM

REV.	DESCRIPTION	DATE	BY
D	MOVED CWTS AND PREWASH FILL VALVE	10JAN05	JAM
E	MODIFIED BLOWER CONTROLS, MRA CONNECTIONS, NOTES 1 AND 2	11AUG06	JAM
F	MODIFIED BLOWER CONTROLS	8DEC06	JAM

Champion
The Dishwashing Machine Specialists

RACK CONVEYOR, WATER SAVER
STEAM/ELECTRIC HEAT

B 701843 REV. F

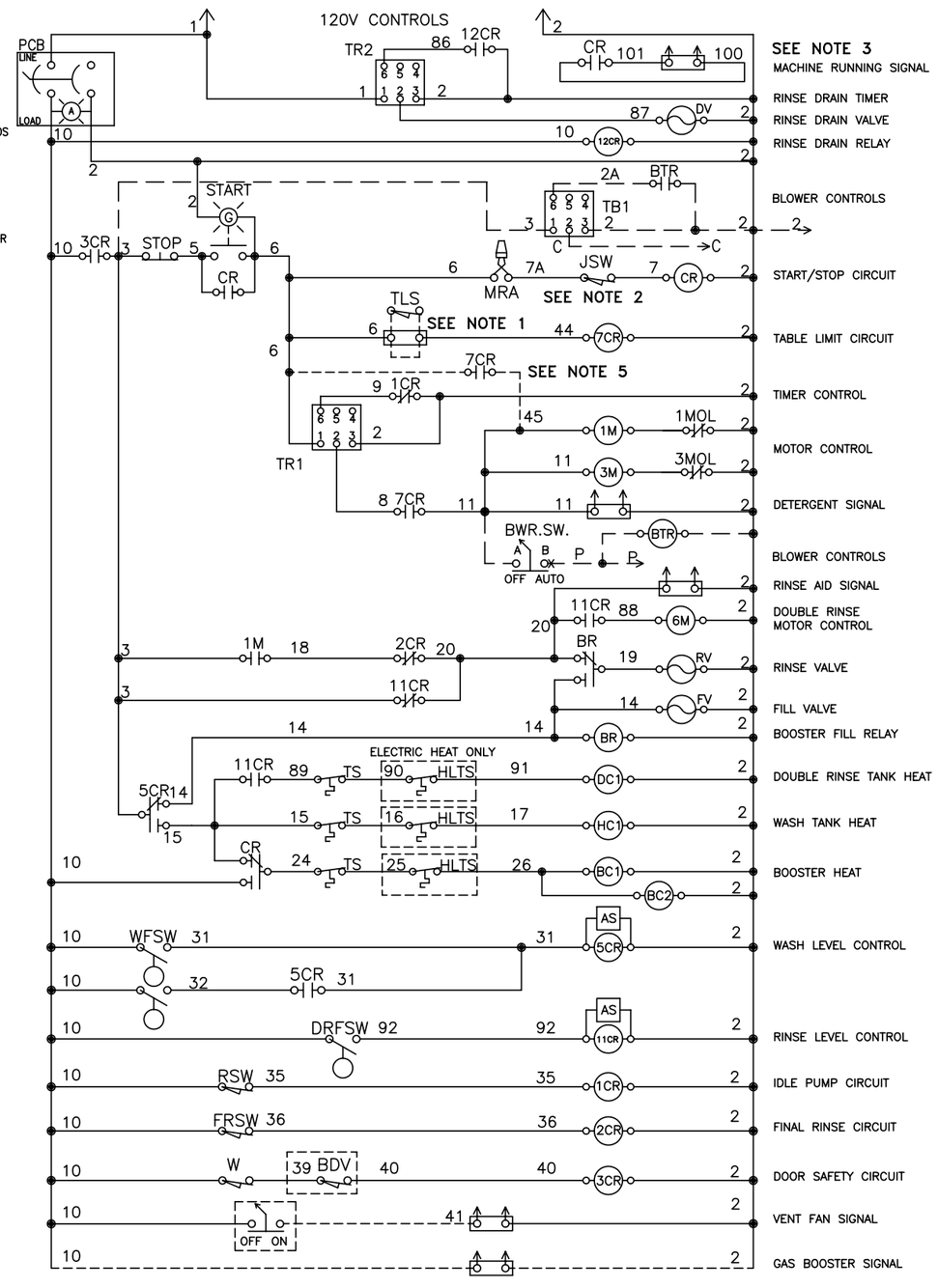
**

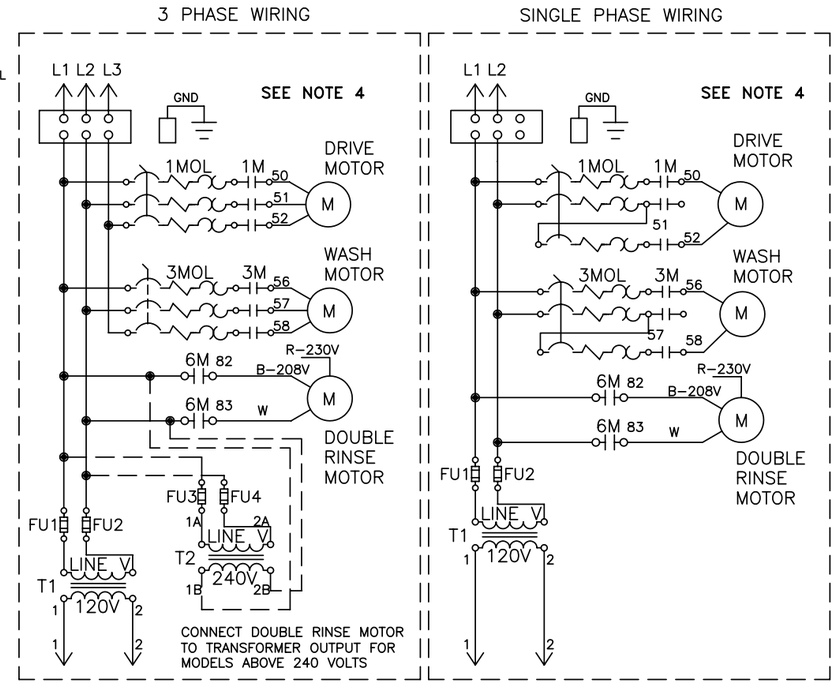
MODELS COVERED BY THIS DRAWING	
44DR	
44DRWS	

NOTES:

1. WHEN TABLE LIMIT SWITCH IS USED REMOVE JUMPER AND CONNECT LEADS BETWEEN WIRES 6 AND 44 ON TERMINAL BLOCK IN PANEL.
2. WHEN AN MRA TABLE IS USED CONNECT MRA JAM SWITCH TO WIRES 6 AND 7A IN JUNCTION BOX ON FRONT OF MACHINE.
3. USED FOR MACHINE RUNNING SIGNAL.
4. DRIVE MOTOR CONNECTED SINGLE PHASE FOR 200–240 VOLT MODELS.
5. ON MODELS WITH SIDE LOADER OPTION DRIVE MOTOR CONTACTOR 1M IS CONNECTED TO WIRE #45 INSTEAD OF WIRE #11.
6. ON MODELS WITH MULTIPLE ELECTRIC CONNECTIONS, MAKE HEATER POWER CONNECTIONS AT THE HEATER FUSE BLOCK.

1CR	RACK SWITCH RELAY
2CR	FINAL RINSE SWITCH RELAY
3CR	DOOR SAFETY SWITCH RELAY
5CR	WASH FILL RELAY
7CR	TABLE LIMIT SWITCH RELAY
11CR	DOUBLE RINSE FILL RELAY
12CR	DRAIN CONTROL RELAY
1M	DRIVE MOTOR CONTACTOR
1MOL	DRIVE MOTOR OVERLOAD
3M	WASH MOTOR CONTACTOR
3MOL	WASH MOTOR OVERLOAD
5M	BLOWER MOTOR CONTACTOR
5MOL	BLOWER MOTOR OVERLOAD
6M	DOUBLE RINSE MOTOR RELAY
AS	ARC SUPPRESSOR
BC–	BOOSTER CONTACTOR/STEAM VALVE
BDV	BLOWER DOOR SWITCH
BR	BOOSTER RELAY
BTR	BLOWER TIMER RELAY
CR	HOLD–IN RELAY
DC1	DOUBLE RINSE HEATER CONTACTOR
DV	DRAIN VALVE
DRFSW	DOUBLE RINSE TANK FLOAT SWITCH
FRSW	FINAL RINSE SWITCH
FU	FUSE/FUSE BLOCK
FV	FILL VALVE
HC–	HEAT CONTACTOR/STEAM VALVE
HLTS	HIGH LIMIT THERMOSTAT
JSW	JAM SWITCH
PCB	POWER SWITCH/CIRCUIT BREAKER
RSW	RACK SWITCH
RV	RINSE VALVE
T1	CONTROL TRANSFORMER
T2	DR MOTOR TRANSFORMER
TB1	BLOWER TIMER
TLS	TABLE LIMIT SWITCH
TR1	IDLE PUMP TIMER
TR2	DRAIN VALVE TIMER
TS	THERMOSTAT
W	WASH DOOR SWITCH
WFSW	WASH TANK FLOAT SWITCH

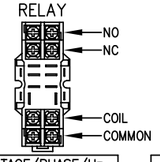




SEE DRAWING 114039 FOR BOOSTER HEATER WIRING

SEE DRAWING 114123 FOR WS BOOSTER HEATER WIRING

DIAGRAM STATE
POWER OFF
DOORS CLOSED
TANKS EMPTY



CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER,TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR.BY	J.MCALLISTER	SCALE	NONE
DATE	07SEP04	SHEET	1 OF 1

REV.	DESCRIPTION	DATE	BY
A	ADDED WS MODEL TO DRAWING	14JUN05	JAM
B	CHANGED DRAIN VALVE TIMER CIRCUIT	3FEB06	JAM
C	MODIFIED BLOWER CONTROLS, MRA CONNECTIONS, NOTES 1 AND 2	15AUG06	JAM

REV.	DESCRIPTION	DATE	BY
D	MODIFIED BLOWER CONTROLS	8DEC06	JAM

Champion
The Dishwashing Machine Specialists

SINGLE TANK RACK CONVEYOR
DOUBLE RINSE STEAM/ELECTRIC HEAT

B 701912 REV. D

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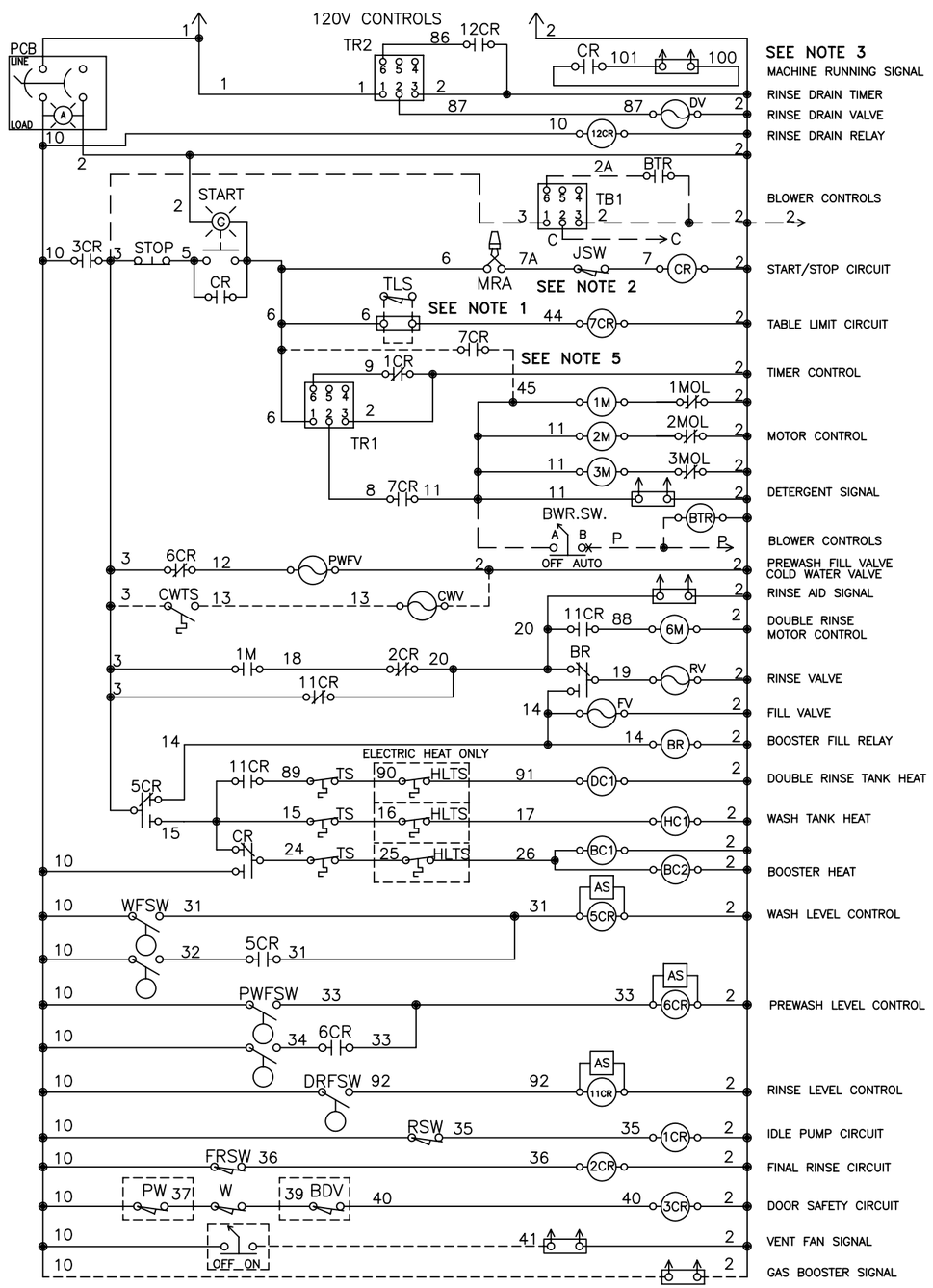
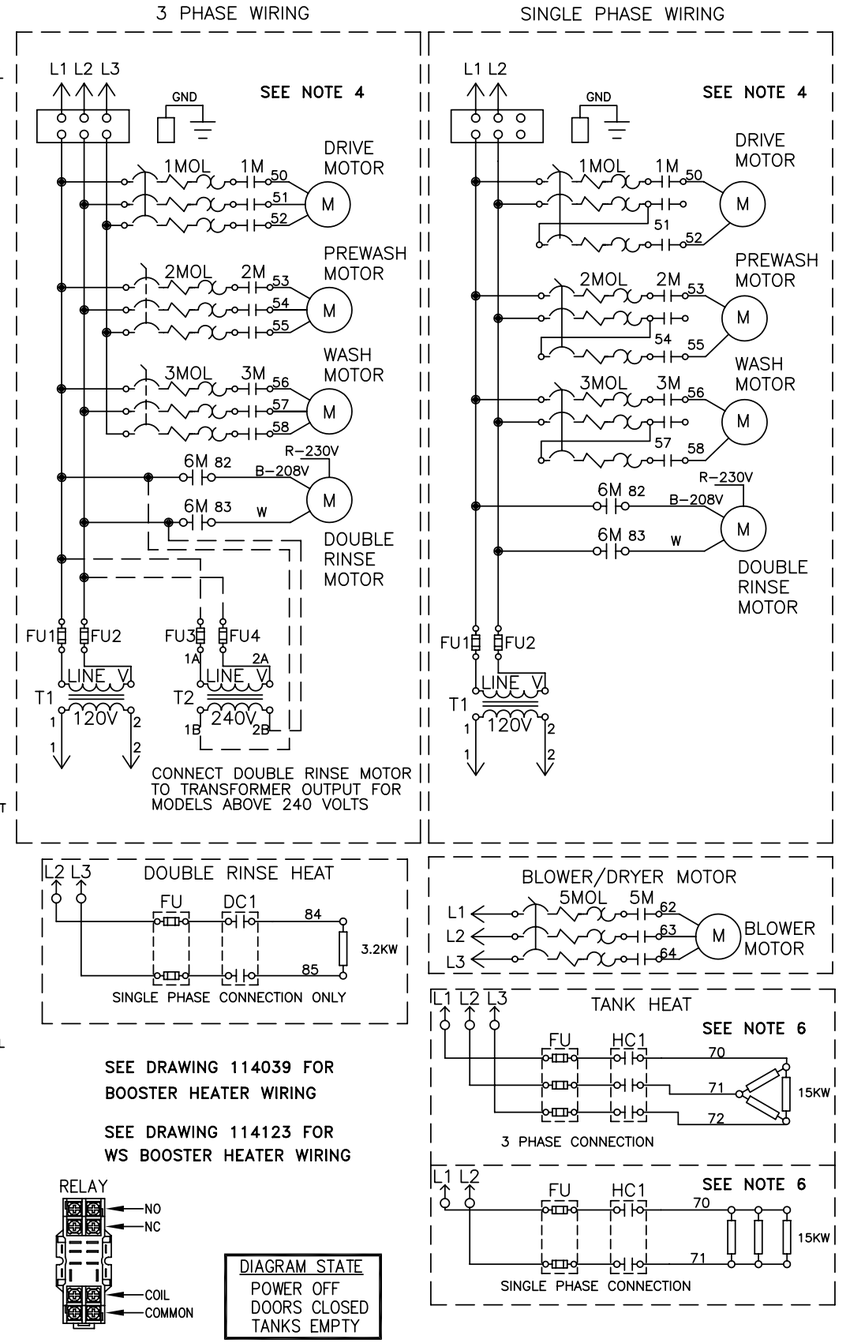
MODELS COVERED BY THIS DRAWING	
66DRPW	66DRWSPW
70DRFFPW	70DRWSFFPW
80DRHDPW	80DRWSHDPW

NOTES:

1. WHEN TABLE LIMIT SWITCH IS USED REMOVE JUMPER AND CONNECT LEADS BETWEEN WIRES 6 AND 44 ON TERMINAL BLOCK IN PANEL.
2. WHEN AN MRA TABLE IS USED CONNECT MRA JAM SWITCH TO WIRES 6 AND 7A IN JUNCTION BOX ON FRONT OF MACHINE.
3. USED FOR MACHINE RUNNING SIGNAL.
4. DRIVE MOTOR CONNECTED SINGLE PHASE FOR 200–240 VOLT MODELS.
5. ON MODELS WITH SIDE LOADER OPTION DRIVE MOTOR CONTACTOR 1M IS CONNECTED TO WIRE #45 INSTEAD OF WIRE #11.
6. ON MODELS WITH MULTIPLE ELECTRIC CONNECTIONS, MAKE HEATER POWER CONNECTIONS AT THE HEATER FUSE BLOCK.

1CR	RACK SWITCH RELAY
2CR	FINAL RINSE SWITCH RELAY
3CR	DOOR SAFETY SWITCH RELAY
5CR	WASH FILL RELAY
6CR	PREWASH FILL RELAY
7CR	TABLE LIMIT SWITCH RELAY
11CR	DOUBLE RINSE FILL RELAY
12CR	DRAIN CONTROL RELAY
1M	DRIVE MOTOR CONTACTOR
1MOL	DRIVE MOTOR OVERLOAD
2M	PREWASH MOTOR CONTACTOR
2MOL	PREWASH MOTOR OVERLOAD
3M	WASH MOTOR CONTACTOR
3MOL	WASH MOTOR OVERLOAD
5M	BLOWER MOTOR CONTACTOR
5MOL	BLOWER MOTOR OVERLOAD
6M	DOUBLE RINSE MOTOR RELAY
AS	ARC SUPPRESSOR
BC–	BOOSTER CONTACTOR/STEAM VALVE
BDV	BLOWER DOOR SWITCH
BR	BOOSTER RELAY
BTR	BLOWER TIMER RELAY
BWR SW	BLOWER DRYER SWITCH
CR	HOLD–IN RELAY
CWV	COLD WATER VALVE
DC1	DOUBLE RINSE HEATER CONTACTOR
DV	DRAIN VALVE
DRFSW	DOUBLE RINSE TANK FLOAT SWITCH
FRSW	FINAL RINSE SWITCH
FU	FUSE/FUSE BLOCK
FV	FILL VALVE
HC–	HEAT CONTACTOR/STEAM VALVE
HLTS	HIGH LIMIT THERMOSTAT
JSW	JAM SWITCH
PCB	POWER SWITCH/CIRCUIT BREAKER
PWFSW	PREWASH TANK FLOAT SWITCH
PWFV	PREWASH FILL VALVE
RSW	RACK SWITCH
RV	RINSE VALVE
T1	CONTROL TRANSFORMER
T2	DR MOTOR TRANSFORMER
TB1	BLOWER TIMER
TLS	TABLE LIMIT SWITCH
TR1	IDLE PUMP TIMER
TR2	DRAIN VALVE TIMER
TS	THERMOSTAT
W	WASH DOOR SWITCH
WFSW	WASH TANK FLOAT SWITCH





CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER,TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR.BY	J.MCALLISTER	SCALE	NONE
DATE	23DEC04	SHEET 1 OF 1	

REV.	DESCRIPTION	DATE	BY
A	CHANGED DRAIN VALVE TIMER CIRCUIT ADDED BLOWER SWITCH	14MAR06	JAM
B	MODIFIED BLOWER CONTROLS, MRA CONNECTION, NOTES 1 AND 2	15AUG06	JAM
C	MODIFIED BLOWER CONTROLS	8DEC06	JAM

REV.	DESCRIPTION	DATE	BY

Champion
The Dishwashing Machine Specialists

SINGLE TANK RACK CONVEYOR WITH PREWASH
DOUBLE RINSE STEAM/ELECTRIC HEAT

B 701913 REV. C

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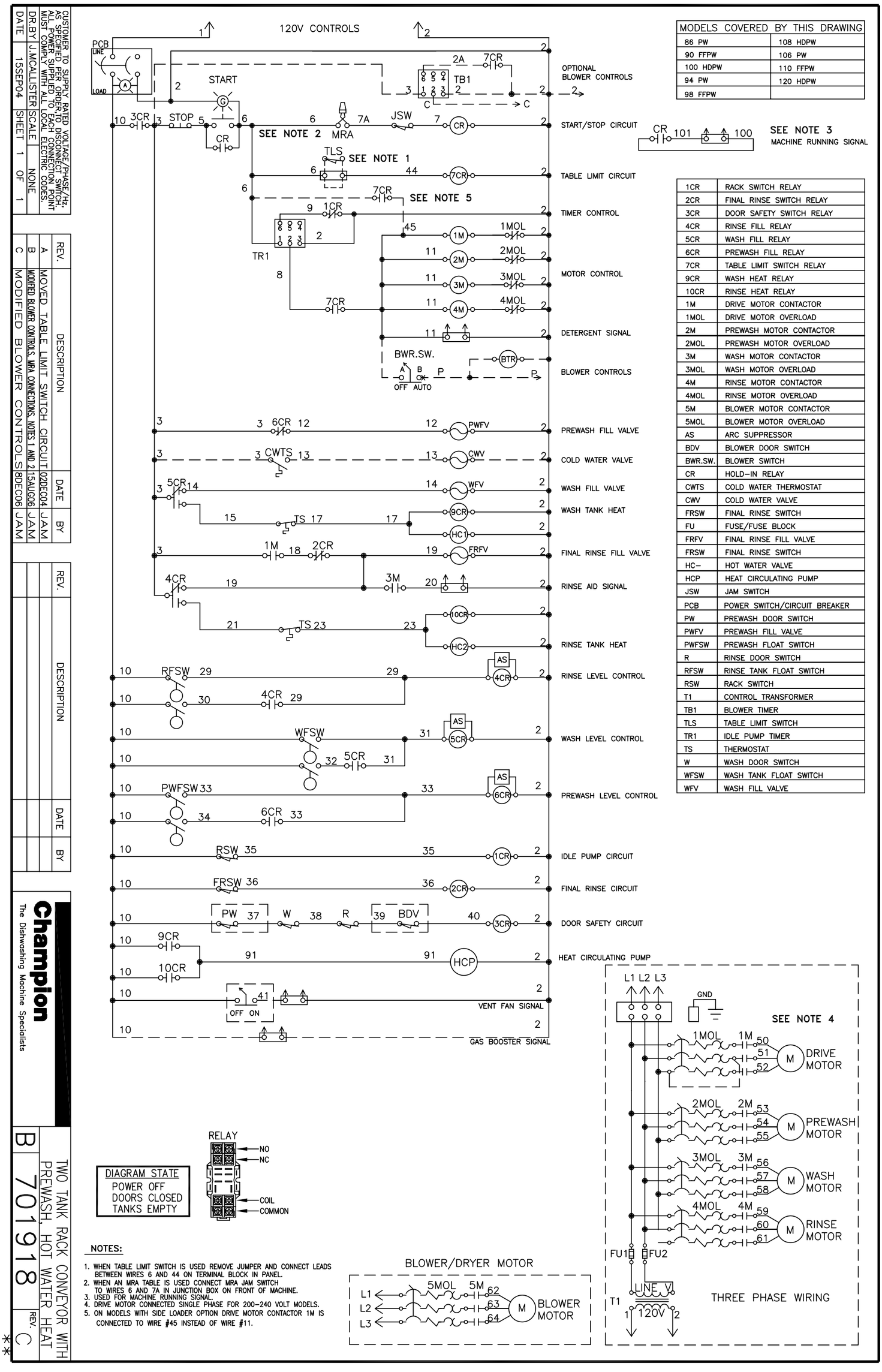


MODELS COVERED BY THIS DRAWING	
86 PW	108 HDPW
90 FFPW	106 PW
100 HDPW	110 FFPW
94 PW	120 HDPW
98 FFPW	

1CR	RACK SWITCH RELAY
2CR	FINAL RINSE SWITCH RELAY
3CR	DOOR SAFETY SWITCH RELAY
4CR	RINSE FILL RELAY
5CR	WASH FILL RELAY
6CR	PREWASH FILL RELAY
7CR	TABLE LIMIT SWITCH RELAY
9CR	WASH HEAT RELAY
10CR	RINSE HEAT RELAY
1M	DRIVE MOTOR CONTACTOR
1MOL	DRIVE MOTOR OVERLOAD
2M	PREWASH MOTOR CONTACTOR
2MOL	PREWASH MOTOR OVERLOAD
3M	WASH MOTOR CONTACTOR
3MOL	WASH MOTOR OVERLOAD
4M	RINSE MOTOR CONTACTOR
4MOL	RINSE MOTOR OVERLOAD
5M	BLOWER MOTOR CONTACTOR
5MOL	BLOWER MOTOR OVERLOAD
AS	ARC SUPPRESSOR
BDV	BLOWER DOOR SWITCH
BWR.SW.	BLOWER SWITCH
CR	HOLD-IN RELAY
CWTS	COLD WATER THERMOSTAT
CWV	COLD WATER VALVE
FRSW	FINAL RINSE SWITCH
FU	FUSE/FUSE BLOCK
FRFV	FINAL RINSE FILL VALVE
FRSW	FINAL RINSE SWITCH
HC-	HOT WATER VALVE
HCP	HEAT CIRCULATING PUMP
JSW	JAM SWITCH
PCB	POWER SWITCH/CIRCUIT BREAKER
PW	PREWASH DOOR SWITCH
PWFV	PREWASH FILL VALVE
PWFSW	PREWASH FLOAT SWITCH
R	RINSE DOOR SWITCH
RFSW	RINSE TANK FLOAT SWITCH
RSW	RACK SWITCH
T1	CONTROL TRANSFORMER
TB1	BLOWER TIMER
TLS	TABLE LIMIT SWITCH
TR1	IDLE PUMP TIMER
TS	THERMOSTAT
W	WASH DOOR SWITCH
WFSW	WASH TANK FLOAT SWITCH
WFV	WASH FILL VALVE

NOTES:

1. WHEN TABLE LIMIT SWITCH IS USED REMOVE JUMPER AND CONNECT LEADS BETWEEN WIRES 6 AND 44 ON TERMINAL BLOCK IN PANEL.
2. WHEN AN MRA TABLE IS USED CONNECT MRA JAM SWITCH TO WIRES 6 AND 7A IN JUNCTION BOX ON FRONT OF MACHINE.
3. USED FOR MACHINE RUNNING SIGNAL.
4. DRIVE MOTOR CONNECTED SINGLE PHASE FOR 200-240 VOLT MODELS.
5. ON MODELS WITH SIDE LOADER OPTION DRIVE MOTOR CONTACTOR 1M IS CONNECTED TO WIRE #45 INSTEAD OF WIRE #11.

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz. AS SPECIFIED ON DATA PLATE. DISCONNECTION MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DATE	DR.BY	SCALE	SHEET
15SEP04	J.MCALLISTER	NONE	1 OF 1

REV.	DESCRIPTION	DATE	BY
A	MOVED TABLE LIMIT SWITCH CIRCUIT	02DEC04	JAM
B	MODIFIED BLOWER CONTROLS, MRA CONNECTIONS, NOTES 1 AND 2	15AUG06	JAM
C	MODIFIED BLOWER CONTROLS	8DEC06	JAM

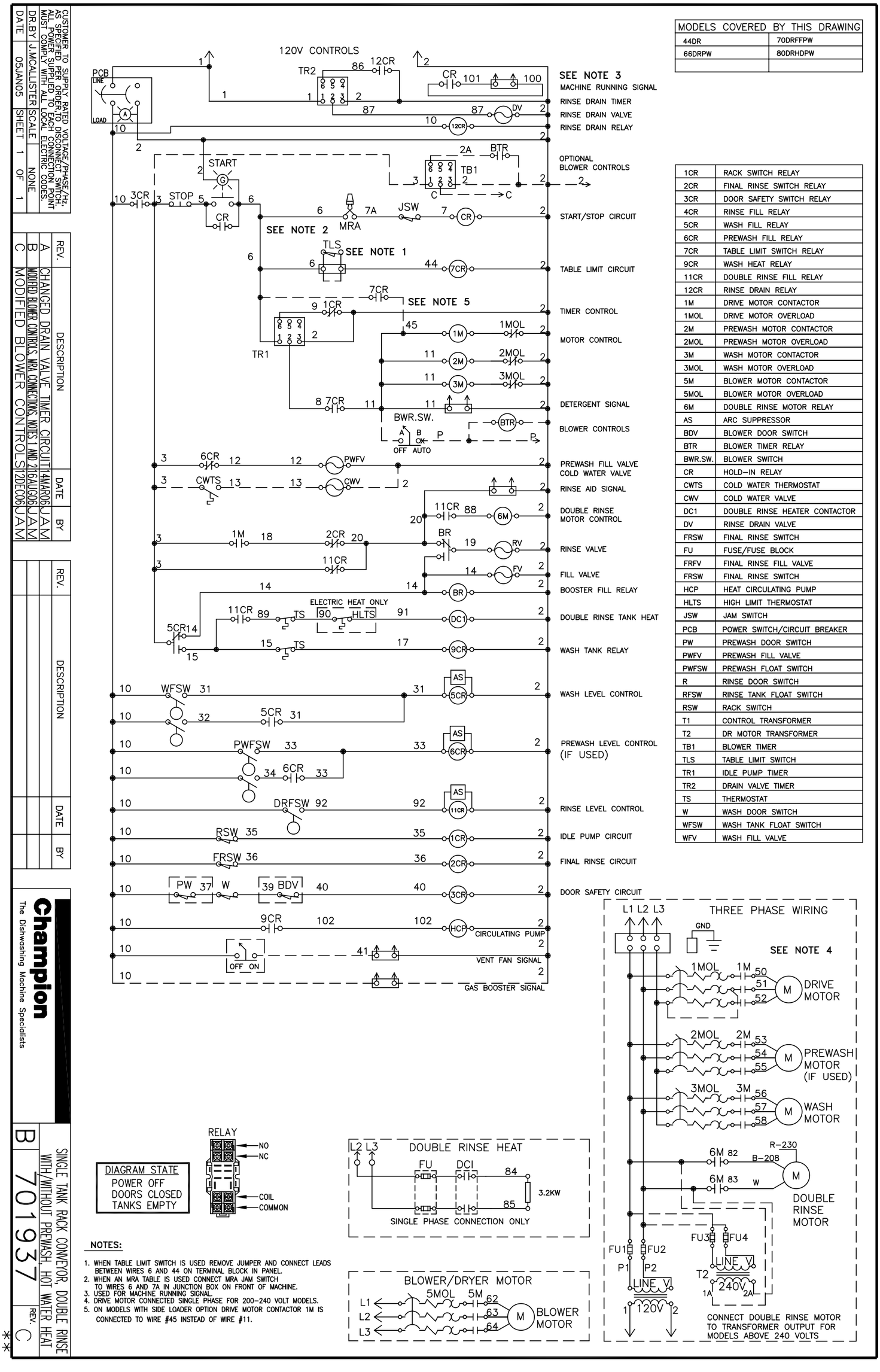
REV.	DESCRIPTION	DATE	BY

Champion

The Dishwashing Machine Specialists

TWO TANK RACK CONVEYOR WITH PREWASH, HOT WATER HEAT

B 701918 REV. C



MODELS COVERED BY THIS DRAWING	
44DR	70DRFFPW
66DRPW	80DRHDPW

1CR	RACK SWITCH RELAY
2CR	FINAL RINSE SWITCH RELAY
3CR	DOOR SAFETY SWITCH RELAY
4CR	RINSE FILL RELAY
5CR	WASH FILL RELAY
6CR	PREWASH FILL RELAY
7CR	TABLE LIMIT SWITCH RELAY
9CR	WASH HEAT RELAY
11CR	DOUBLE RINSE FILL RELAY
12CR	RINSE DRAIN RELAY
1M	DRIVE MOTOR CONTACTOR
1MOL	DRIVE MOTOR OVERLOAD
2M	PREWASH MOTOR CONTACTOR
2MOL	PREWASH MOTOR OVERLOAD
3M	WASH MOTOR CONTACTOR
3MOL	WASH MOTOR OVERLOAD
5M	BLOWER MOTOR CONTACTOR
5MOL	BLOWER MOTOR OVERLOAD
6M	DOUBLE RINSE MOTOR RELAY
AS	ARC SUPPRESSOR
BDV	BLOWER DOOR SWITCH
BTR	BLOWER TIMER RELAY
BWR.SW.	BLOWER SWITCH
CR	HOLD-IN RELAY
CWTS	COLD WATER THERMOSTAT
CWV	COLD WATER VALVE
DC1	DOUBLE RINSE HEATER CONTACTOR
DV	RINSE DRAIN VALVE
FRSW	FINAL RINSE SWITCH
FU	FUSE/FUSE BLOCK
FRFV	FINAL RINSE FILL VALVE
FRSW	FINAL RINSE SWITCH
HCP	HEAT CIRCULATING PUMP
HLTS	HIGH LIMIT THERMOSTAT
JSW	JAM SWITCH
PCB	POWER SWITCH/CIRCUIT BREAKER
PW	PREWASH DOOR SWITCH
PWFV	PREWASH FILL VALVE
PWFSW	PREWASH FLOAT SWITCH
R	RINSE DOOR SWITCH
RFSW	RINSE TANK FLOAT SWITCH
RSW	RACK SWITCH
T1	CONTROL TRANSFORMER
T2	DR MOTOR TRANSFORMER
TB1	BLOWER TIMER
TLS	TABLE LIMIT SWITCH
TR1	IDLE PUMP TIMER
TR2	DRAIN VALVE TIMER
TS	THERMOSTAT
W	WASH DOOR SWITCH
WFSW	WASH TANK FLOAT SWITCH
WFV	WASH FILL VALVE

NOTES:

1. WHEN TABLE LIMIT SWITCH IS USED REMOVE JUMPER AND CONNECT LEADS BETWEEN WIRES 6 AND 44 ON TERMINAL BLOCK IN PANEL.
2. WHEN AN MRA TABLE IS USED CONNECT MRA JAM SWITCH TO WIRES 6 AND 7A IN JUNCTION BOX ON FRONT OF MACHINE.
3. USED FOR MACHINE RUNNING SIGNAL.
4. DRIVE MOTOR CONNECTED SINGLE PHASE FOR 200-240 VOLT MODELS.
5. ON MODELS WITH SIDE LOADER OPTION DRIVE MOTOR CONTACTOR 1M IS CONNECTED TO WIRE #45 INSTEAD OF WIRE #11.

REV.	DESCRIPTION	DATE	BY
A	CHANGED DRAIN VALVE TIMER CIRCUIT	14MAR06	JAM
B	MODIFIED BLOWER CONTROLS, MRA CONNECTIONS, NOTES 1 AND 2	16AUG06	JAM
C	MODIFIED BLOWER CONTROLS	12DEC06	JAM

REV.	DESCRIPTION	DATE	BY

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz. AS SPECIFIED. PROPER DISCONNECT SWITCH MUST BE PROVIDED FOR EACH CONNECTION. ALL WIRING MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR.BY	J.MCALLISTER	SCALE	NONE
DATE	05JAN05	SHEET	1 OF 1

Champion
The Dishwashing Machine Specialists

B 701937 REV. C

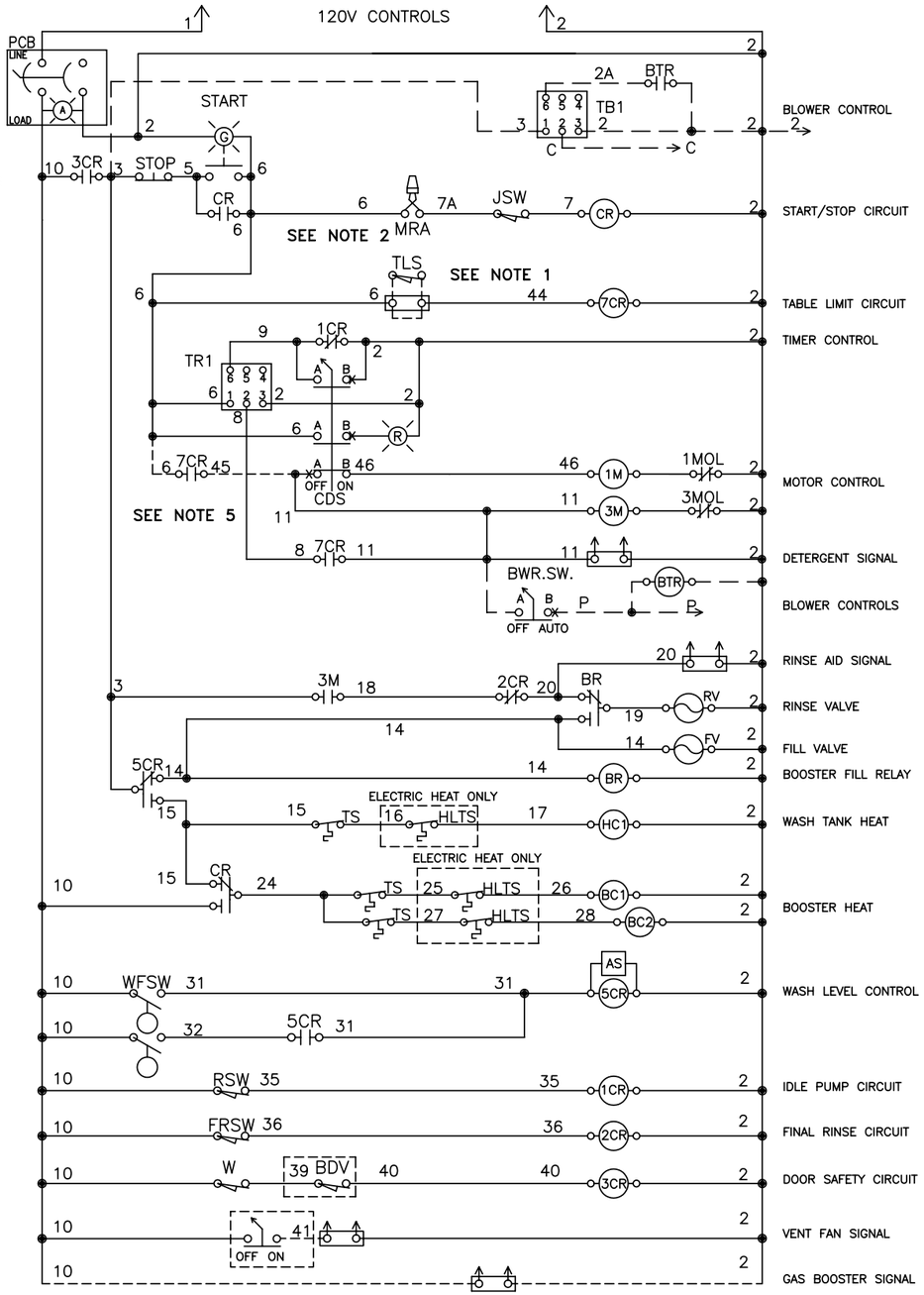
SINGLE TANK RACK CONVEYOR, DOUBLE RINSE WITH/WITHOUT PREWASH, HOT WATER HEAT

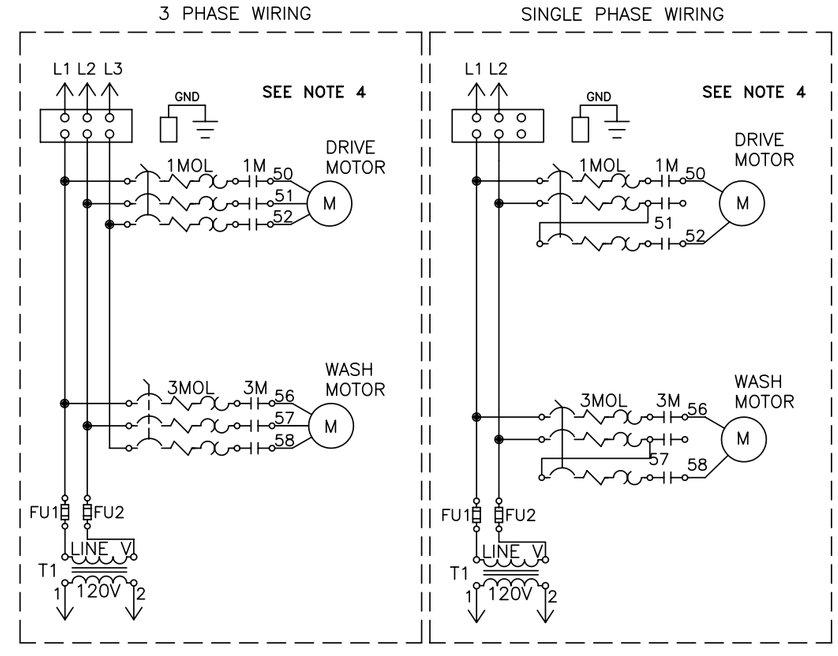
MODELS COVERED BY THIS DRAWING	
44	
44 LT	
54	

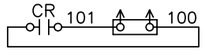
NOTES:

1. WHEN TABLE LIMIT SWITCH IS USED REMOVE JUMPER AND CONNECT LEADS BETWEEN WIRES 6 AND 44 ON TERMINAL BLOCK IN PANEL.
2. WHEN AN MRA TABLE IS USED CONNECT MRA JAM SWITCH TO WIRES 6 AND 7A IN JUNCTION BOX ON FRONT OF MACHINE.
3. USED FOR MACHINE RUNNING SIGNAL.
4. DRIVE MOTOR CONNECTED SINGLE PHASE FOR 200–240 VOLT MODELS.
5. ON MODELS WITH SIDE LOADER OPTION CONVEYOR DWELL SWITCH IS CONNECTED TO WIRE #45 INSTEAD OF WIRE #11.
6. ON MODELS WITH MULTIPLE ELECTRIC CONNECTIONS, MAKE HEATER POWER CONNECTIONS AT THE HEATER FUSE BLOCK.

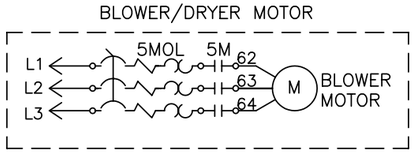
1CR	RACK SWITCH RELAY
2CR	FINAL RINSE SWITCH RELAY
3CR	DOOR SAFETY SWITCH RELAY
5CR	WASH FILL RELAY
7CR	TABLE LIMIT SWITCH RELAY
1M	DRIVE MOTOR CONTACTOR
1MOL	DRIVE MOTOR OVERLOAD
3M	WASH MOTOR CONTACTOR
3MOL	WASH MOTOR OVERLOAD
5M	BLOWER MOTOR CONTACTOR
5MOL	BLOWER MOTOR OVERLOAD
AS	ARC SUPPRESSOR
BC–	BOOSTER CONTACTOR/STEAM VALVE
BDV	BLOWER DOOR SWITCH
BR	BOOSTER RELAY
BTR	BLOWER TIMER RELAY
BWR.SW.	BLOWER SWITCH
CR	HOLD–IN RELAY
CDS	CONVEYOR DWELL SWITCH
FRSW	FINAL RINSE SWITCH
FU	FUSE/FUSE BLOCK
FV	FILL VALVE
HC–	HEAT CONTACTOR/STEAM VALVE
HLTS	HIGH LIMIT THERMOSTAT
JSW	JAM SWITCH
PCB	POWER SWITCH/CIRCUIT BREAKER
RSW	RACK SWITCH
RV	RINSE VALVE
T1	CONTROL TRANSFORMER
TB1	BLOWER TIMER
TLS	TABLE LIMIT SWITCH
TR1	IDLE PUMP TIMER
TS	THERMOSTAT
W	WASH DOOR SWITCH
WFSW	WASH TANK FLOAT SWITCH

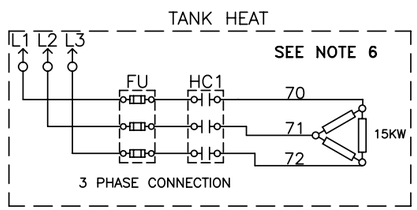






SEE NOTE 3
MACHINE RUNNING SIGNAL





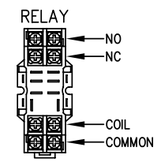


DIAGRAM STATE
POWER OFF
DOORS CLOSED
TANKS EMPTY

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER,TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR.BY	J.MCALLISTER	SCALE	NONE
DATE	04JAN05	SHEET	1 OF 1

REV.	DESCRIPTION	DATE	BY
A	MODIFIED BLOWER CONTROLS, MRA CONNECTIONS, NOTES 1 AND 2	17AUG06	JAM
B	MODIFIED BLOWER CONTROLS	12DEC06	JAM

REV.	DESCRIPTION	DATE	BY

Champion
The Dishwashing Machine Specialists

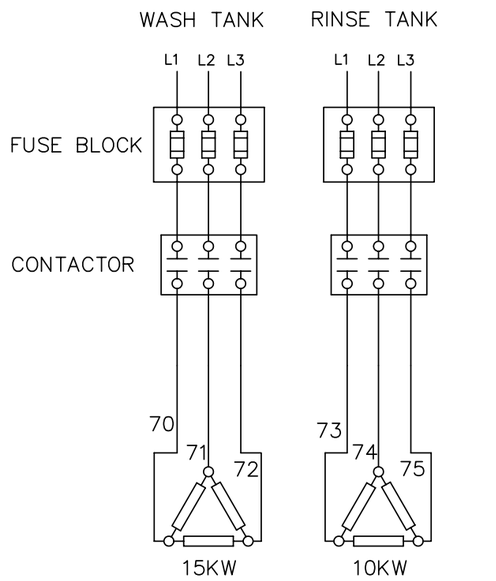
SINGLE TANK RACK CONVEYOR
STEAM/ELECTRIC HEAT CONVEYOR DWELL

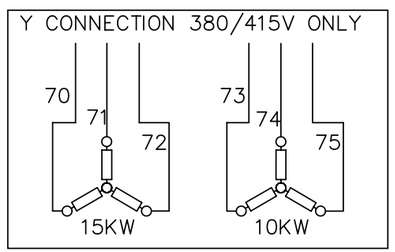
B 701938 REV. B

**

E SERIES RACK MACHINE TANK HEATER CONNECTIONS

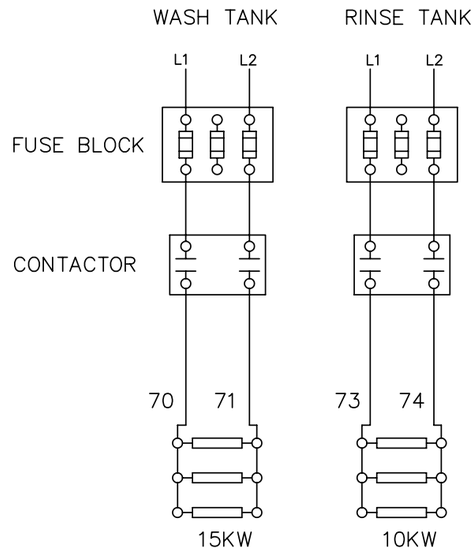
3 PHASE CONNECTION





VOLTAGE 200–220V	WASH	RINSE
KW/CONTACTOR	15KW	10KW
CONTACTOR RATING	60A	60A
FUSE RATING	50A	35A
WIRE SIZE	#8	#10
VOLTAGE 230–240V	WASH	RINSE
KW/CONTACTOR	15KW	10KW
CONTACTOR RATING	60A	60A
FUSE RATING	45A	30A
WIRE SIZE	#8	#10
VOLTAGE 380V	WASH	RINSE
KW/CONTACTOR	15KW	10KW
CONTACTOR RATING	60A	60A
FUSE RATING	30A	20A
WIRE SIZE	#12	#12
VOLTAGE 415V	WASH	RINSE
KW/CONTACTOR	15KW	10KW
CONTACTOR RATING	60A	60A
FUSE RATING	30A	20A
WIRE SIZE	#12	#12
VOLTAGE 480V	WASH	RINSE
KW/CONTACTOR	15KW	10KW
CONTACTOR RATING	60A	60A
FUSE RATING	25A	20A
WIRE SIZE	#12	#12
VOLTAGE 575V	WASH	RINSE
KW/CONTACTOR	15KW	10KW
CONTACTOR RATING	60A	60A
FUSE RATING	20A	15A
WIRE SIZE	#12	#14

1 PHASE CONNECTION



VOLTAGE 200–220V	WASH	RINSE
KW/CONTACTOR	15KW	10KW
CONTACTOR RATING	75A	60A
FUSE RATING	90A	60A
WIRE SIZE	#4	#6
VOLTAGE 230–240V	WASH	RINSE
KW/CONTACTOR	15KW	10KW
CONTACTOR RATING	75A	60A
FUSE RATING	80A	50A
WIRE SIZE	#4	#8

PN: 113991

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER,TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR.BY	J.MCALLISTER	SCALE	
DATE	27OCT04	SHEET 1 OF 1	

REV.	DESCRIPTION	DATE	BY

REV.	DESCRIPTION	DATE	BY

Champion
The Dishwashing Machine Specialists

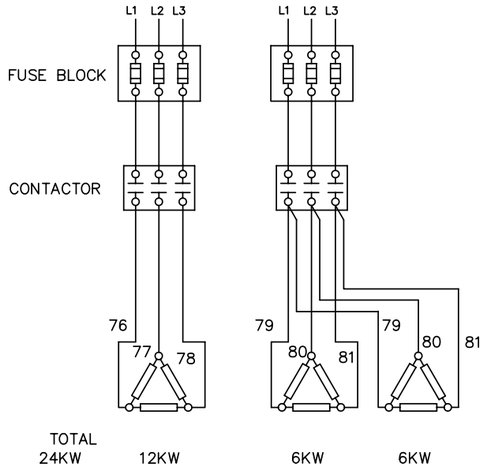
WASH AND RINSE TANK HEAT FOR E SERIES RACK CONVEYOR MACHINES

B 701922 REV.

E SERIES RACK MACHINE INTERNAL BOOSTER HEATER WIRING

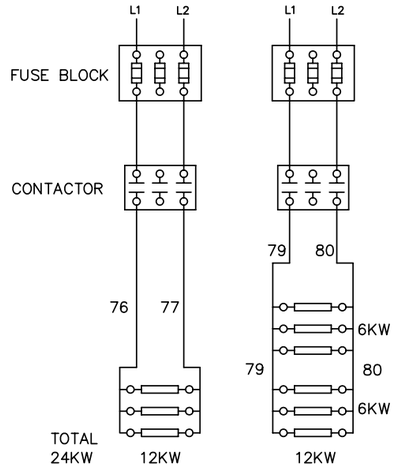
24 KW BOOSTER HEATER

VOLTAGE 208V		DELTA
TOTAL KW	24KW	
KW/CONTACTOR	12KW	12KW
CONTACTOR #	1	2
CONTACTOR RATING	60A	60A
WIRE SIZE	8	8
FUSE RATING	45A	45A
VOLTAGE 240V		DELTA
TOTAL KW	24KW	
KW/CONTACTOR	12KW	12KW
CONTACTOR #	1	2
CONTACTOR RATING	60A	60A
WIRE SIZE	10	10
FUSE RATING	35A	35A
VOLTAGE 380V		WYE (NOT SHOWN)
TOTAL KW	24KW	
KW/CONTACTOR	12KW	12KW
CONTACTOR #	1	2
CONTACTOR RATING	60A	60A
WIRE SIZE	12	12
FUSE RATING	25A	25A
VOLTAGE 415V		WYE (NOT SHOWN)
TOTAL KW	24KW	
KW/CONTACTOR	12KW	12KW
CONTACTOR #	1	2
CONTACTOR RATING	60A	60A
WIRE SIZE	12	12
FUSE RATING	25A	25A
VOLTAGE 480V		DELTA
TOTAL KW	24KW	
KW/CONTACTOR	12KW	12KW
CONTACTOR #	1	2
CONTACTOR RATING	60A	60A
WIRE SIZE	12	12
FUSE RATING	20A	20A
VOLTAGE 575V		DELTA
TOTAL KW	24KW	
KW/CONTACTOR	12KW	12KW
CONTACTOR #	1	2
CONTACTOR RATING	60A	60A
WIRE SIZE	12	12
FUSE RATING	15A	15A



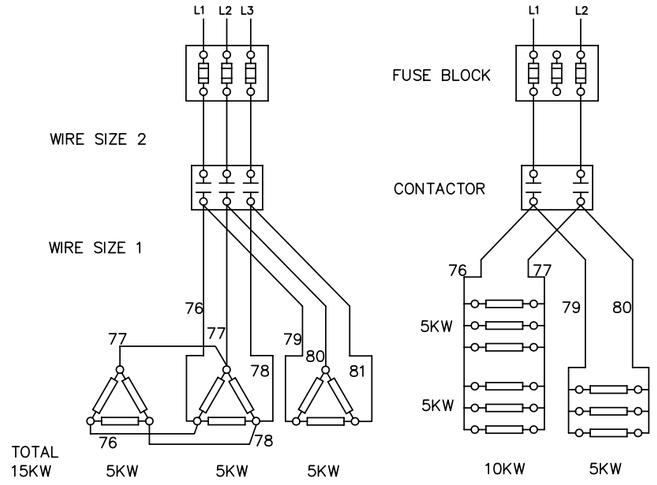
24 KW BOOSTER HEATER

VOLTAGE 208V		SINGLE PHASE
TOTAL KW	24KW	
KW/CONTACTOR	12KW	12KW
CONTACTOR #	1	2
CONTACTOR RATING	75A	75A
WIRE SIZE	6	6
FUSE RATING	70A	70A
VOLTAGE 240V		SINGLE PHASE
TOTAL KW	24KW	
KW/CONTACTOR	12KW	12KW
CONTACTOR #	1	2
CONTACTOR RATING	60A	60A
WIRE SIZE	6	6
FUSE RATING	60A	60A



15 KW BOOSTER HEATER

VOLTAGE 208V	DELTA	SINGLE PHASE
TOTAL KW	15KW	15KW
KW/CONTACTOR	15KW	15KW
CONTACTOR #	1	1
CONTACTOR RATING	60A	75A
WIRE SIZE 1	10	8
WIRE SIZE 2	8	4
FUSE RATING	50A	90A
VOLTAGE 240V	DELTA	SINGLE PHASE
TOTAL KW	15KW	15KW
KW/CONTACTOR	15KW	15KW
CONTACTOR #	1	1
CONTACTOR RATING	60A	75A
WIRE SIZE 1	10	8
WIRE SIZE 2	8	4
FUSE RATING	45A	80A
VOLTAGE 380V	WYE (NOT SHOWN)	
TOTAL KW	15KW	
KW/CONTACTOR	15KW	
CONTACTOR #	1	
CONTACTOR RATING	60A	
WIRE SIZE 1	12	
WIRE SIZE 2	10	
FUSE RATING	30A	
VOLTAGE 415V	WYE (NOT SHOWN)	
TOTAL KW	15KW	
KW/CONTACTOR	15KW	
CONTACTOR #	1	
CONTACTOR RATING	60A	
WIRE SIZE 1	12	
WIRE SIZE 2	10	
FUSE RATING	30A	
VOLTAGE 480V	DELTA	
TOTAL KW	15KW	
KW/CONTACTOR	15KW	
CONTACTOR #	1	
CONTACTOR RATING	60A	
WIRE SIZE	12	
FUSE RATING	25A	
VOLTAGE 575V	DELTA	
TOTAL KW	15KW	
KW/CONTACTOR	15KW	
CONTACTOR #	1	
CONTACTOR RATING	60A	
WIRE SIZE	12	
FUSE RATING	20A	



PN: 114038 REV B

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER,TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.			
DR.BY	J.MCALLISTER	SCALE	NONE
DATE	5NOV04	SHEET 1 OF 1	

REV.	DESCRIPTION	DATE	BY
A	CHANGE HEATER CONFIGURATION	23MAR06	JAM

REV.	DESCRIPTION	DATE	BY

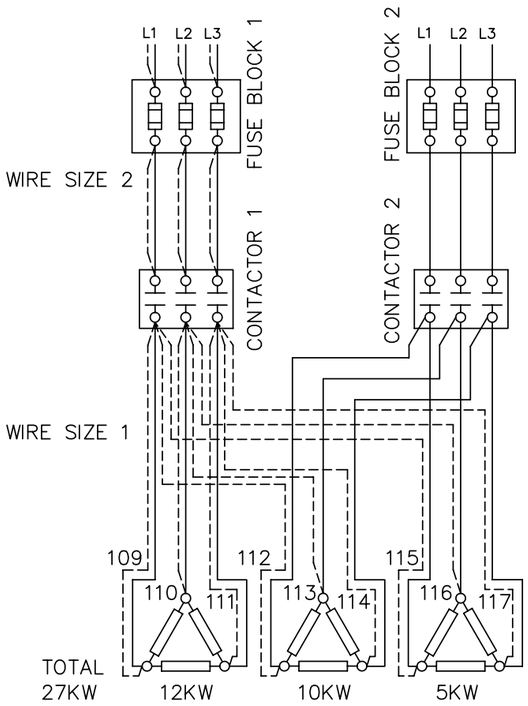
Champion
The Dishwashing Machine Specialists

INTERNAL BOOSTER HEAT
E SERIES RACK CONVEYOR MACHINES

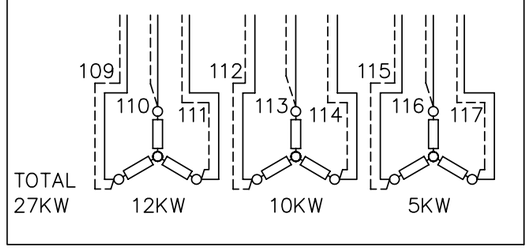
B	701914	REV. A

**

3 PHASE CONNECTION



Y CONNECTION 380/415V ONLY



CANISTER 1 KW/CANISTER 27KW		
VOLTAGE 200–220V		
KW/CONTACTOR	12KW	15KW
CONTACTOR #	1	2
CONTACTOR RATING	60A	60A
FUSE BLOCK #	1	2
FUSE RATING	45A	60A
WIRE SIZE 1 AND 2	#8	#6

CANISTER 1 KW/CANISTER 27KW		
VOLTAGE 230–240V		
KW/CONTACTOR	12KW	15KW
CONTACTOR #	1	2
CONTACTOR RATING	60A	60A
FUSE BLOCK #	1	2
FUSE RATING	40A	50A
WIRE SIZE 1 AND 2	#8	#8

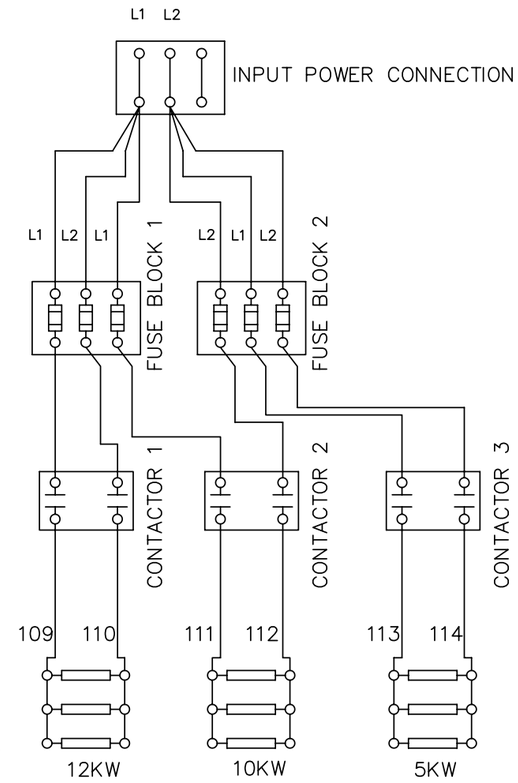
CANISTER 1 KW/CANISTER 27KW	
VOLTAGE 380V	
KW/CONTACTOR	27KW
CONTACTOR #	1
CONTACTOR RATING	60A
FUSE BLOCK #	1
FUSE RATING	50A
WIRE SIZE 1	#12
WIRE SIZE 2	#8

CANISTER 1 KW/CANISTER 27KW	
VOLTAGE 415V	
KW/CONTACTOR	27KW
CONTACTOR #	1
CONTACTOR RATING	60A
FUSE BLOCK #	1
FUSE RATING	50A
WIRE SIZE 1	#12
WIRE SIZE 2	#8

CANISTER 1 KW/CANISTER 27KW	
VOLTAGE 480V	
KW/CONTACTOR	27KW
CONTACTOR #	1
CONTACTOR RATING	60A
FUSE BLOCK #	1
FUSE RATING	40A
WIRE SIZE 1	#12
WIRE SIZE 2	#10

CANISTER 1 KW/CANISTER 27KW	
VOLTAGE 575V	
KW/CONTACTOR	27KW
CONTACTOR #	1
CONTACTOR RATING	60A
FUSE BLOCK #	1
FUSE RATING	35A
WIRE SIZE 1	#12
WIRE SIZE 2	#10

1 PHASE CONNECTION



CANISTER 1 KW/CANISTER 27KW			
VOLTAGE 200–220V			
KW/CONTACTOR	12KW	10KW	5KW
CONTACTOR #	1	2	3
CONTACTOR RATING	75A	60A	60A
FUSE BLOCK #	1	2	3
FUSE RATING	70A	60A	30A
WIRE SIZE	#6	#6	#10

CANISTER 1 KW/CANISTER 27KW			
VOLTAGE 230–240V			
KW/CONTACTOR	12KW	10KW	5KW
CONTACTOR #	1	2	3
CONTACTOR RATING	60A	60A	60A
FUSE BLOCK #	1	2	3
FUSE RATING	60A	60A	30A
WIRE SIZE	#6	#6	#10

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER, TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR.BY	J.MCALLISTER	SCALE	NONE
DATE	03MAY04	SHEET 1 OF 1	

REV.	DESCRIPTION	DATE	BY

REV.	DESCRIPTION	DATE	BY

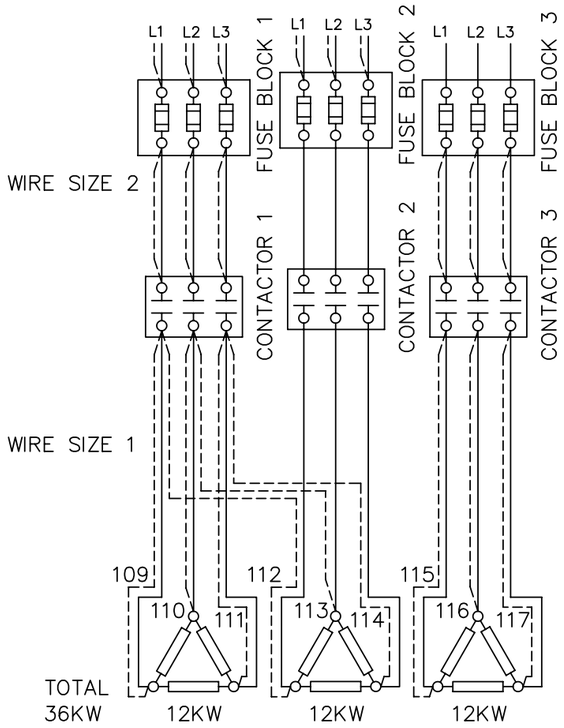
Champion
The Dishwashing Machine Specialists

CH-27E, 27KW BOOSTER FOR RACK CONVEYOR MACHINES

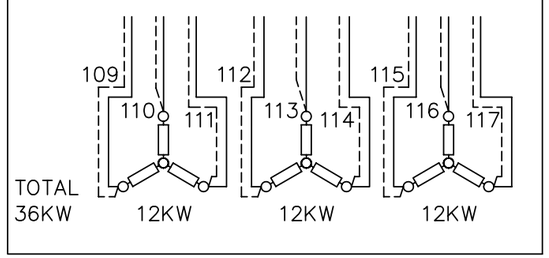
B 701888 REV.

**

3 PHASE CONNECTION

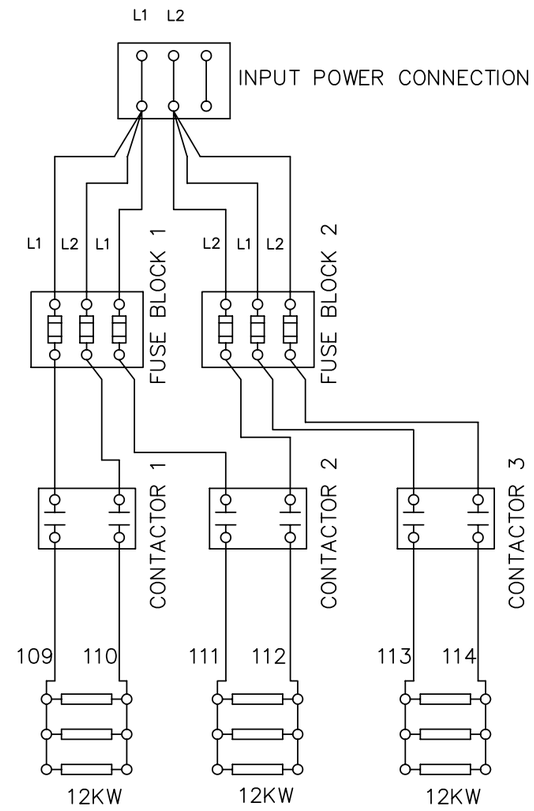


Y CONNECTION 380/415V ONLY



CANISTER 1 KW/CANISTER 36KW			
VOLTAGE 200–220V			
KW/CONTACTOR	12KW	12KW	12KW
CONTACTOR #	1	2	3
CONTACTOR RATING	60A	60A	60A
FUSE BLOCK #	1	2	3
FUSE RATING	45A	45A	45A
WIRE SIZE 1 AND 2	#8	#8	#8
CANISTER 1 KW/CANISTER 36KW			
VOLTAGE 230–240V			
KW/CONTACTOR	12KW	12KW	12KW
CONTACTOR #	1	2	3
CONTACTOR RATING	60A	60A	60A
FUSE BLOCK #	1	2	3
FUSE RATING	40A	40A	40A
WIRE SIZE 1 AND 2	#8	#8	#8
CANISTER 1 KW/CANISTER 36KW			
VOLTAGE 380V			
KW/CONTACTOR	24KW		12KW
CONTACTOR #	1		3
CONTACTOR RATING	60A		60A
FUSE BLOCK #	1		3
FUSE RATING	45A		25A
WIRE SIZE 1	#12		#12
WIRE SIZE 2	#8		#12
CANISTER 1 KW/CANISTER 36KW			
VOLTAGE 415V			
KW/CONTACTOR	24KW		12KW
CONTACTOR #	1		3
CONTACTOR RATING	60A		60A
FUSE BLOCK #	1		3
FUSE RATING	45A		25A
WIRE SIZE 1	#12		#12
WIRE SIZE 2	#8		#12
CANISTER 1 KW/CANISTER 36KW			
VOLTAGE 480V			
KW/CONTACTOR	24KW		12KW
CONTACTOR #	1		3
CONTACTOR RATING	60A		60A
FUSE BLOCK #	1		2
FUSE RATING	40A		20A
WIRE SIZE 1	#12		#12
WIRE SIZE 2	#10		#12
CANISTER 1 KW/CANISTER 36KW			
VOLTAGE 575V			
KW/CONTACTOR	24KW		12KW
CONTACTOR #	1		3
CONTACTOR RATING	60A		60A
FUSE BLOCK #	1		3
FUSE RATING	30A		15A
WIRE SIZE 1	#12		#12
WIRE SIZE 2	#10		#12

1 PHASE CONNECTION



CANISTER 1 KW/CANISTER 36KW			
VOLTAGE 200–220V			
KW/CONTACTOR	12KW	12KW	12KW
CONTACTOR #	1	2	3
CONTACTOR RATING	75A	75A	75A
FUSE BLOCK #	1	2	3
FUSE RATING	70A	70A	70A
WIRE SIZE	#4	#4	#4
CANISTER 1 KW/CANISTER 36KW			
VOLTAGE 230–240V			
KW/CONTACTOR	12KW	12KW	12KW
CONTACTOR #	1	2	3
CONTACTOR RATING	75A	75A	75A
FUSE BLOCK #	1	2	3
FUSE RATING	70A	70A	70A
WIRE SIZE	#6	#6	#6

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER, TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR.BY J.MCALLISTER SCALE

DATE 05APR04 SHEET 1 OF 1

REV.	DESCRIPTION	DATE	BY

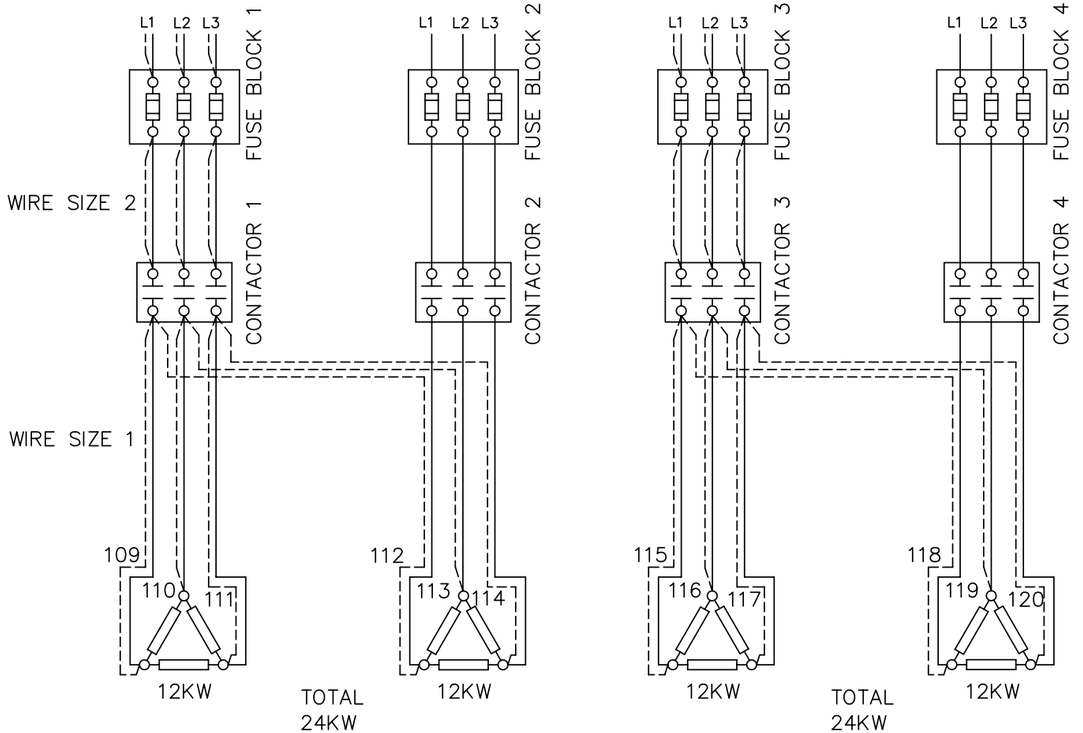
REV.	DESCRIPTION	DATE	BY

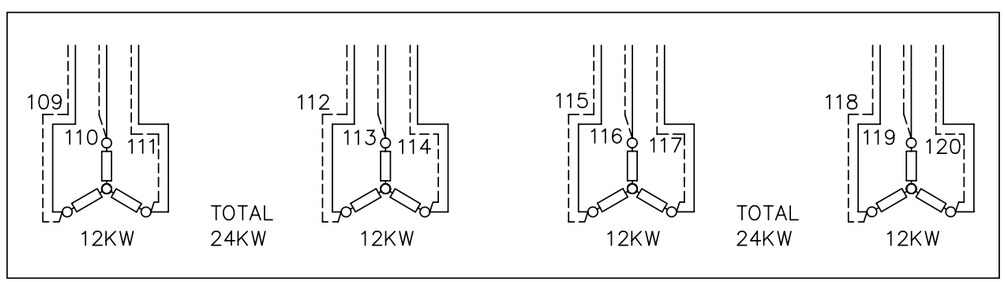
Champion
The Dishwashing Machine Specialists

CH-36E, 36KW BOOSTER FOR RACK CONVEYOR MACHINES

B 701861 REV.

**





Y CONNECTION 380/415V ONLY

CANISTER 1 KW/CANISTER 24KW			CANISTER 2 KW/CANISTER 24KW		
VOLTAGE 200–220V			VOLTAGE 200–220V		
KW/CONTACTOR	12KW	12KW	KW/CONTACTOR	12KW	12KW
CONTACTOR #	1	2	CONTACTOR #	3	4
CONTACTOR RATING	60A	60A	CONTACTOR RATING	60A	60A
FUSE BLOCK #	1	2	FUSE BLOCK #	3	4
FUSE RATING	45A	45A	FUSE RATING	45A	45A
WIRE SIZE 1 AND 2	#8	#8	WIRE SIZE 1 AND 2	#8	#8
CANISTER 1 KW/CANISTER 24KW			CANISTER 2 KW/CANISTER 24KW		
VOLTAGE 230–240V			VOLTAGE 230–240V		
KW/CONTACTOR	12KW	12KW	KW/CONTACTOR	12KW	12KW
CONTACTOR #	1	2	CONTACTOR #	3	4
CONTACTOR RATING	60A	60A	CONTACTOR RATING	60A	60A
FUSE BLOCK #	1	2	FUSE BLOCK #	3	4
FUSE RATING	40A	40A	FUSE RATING	40A	40A
WIRE SIZE 1 AND 2	#8	#8	WIRE SIZE 1 AND 2	#8	#8
CANISTER 1 KW/CANISTER 24KW			CANISTER 2 KW/CANISTER 24KW		
VOLTAGE 380V			VOLTAGE 380V		
KW/CONTACTOR	24KW		KW/CONTACTOR	24KW	
CONTACTOR #	1		CONTACTOR #	3	
CONTACTOR RATING	60A		CONTACTOR RATING	60A	
FUSE BLOCK #	1		FUSE BLOCK #	3	
FUSE RATING	45A		FUSE RATING	45A	
WIRE SIZE 1	#12		WIRE SIZE 1	#12	
WIRE SIZE 2	#8		WIRE SIZE 2	#8	
CANISTER 1 KW/CANISTER 24KW			CANISTER 2 KW/CANISTER 24KW		
VOLTAGE 415V			VOLTAGE 415V		
KW/CONTACTOR	24KW		KW/CONTACTOR	24KW	
CONTACTOR #	1		CONTACTOR #	3	
CONTACTOR RATING	60A		CONTACTOR RATING	60A	
FUSE BLOCK #	1		FUSE BLOCK #	3	
FUSE RATING	45A		FUSE RATING	45A	
WIRE SIZE 1	#12		WIRE SIZE 1	#12	
WIRE SIZE 2	#8		WIRE SIZE 2	#8	
CANISTER 1 KW/CANISTER 24KW			CANISTER 2 KW/CANISTER 24KW		
VOLTAGE 480V			VOLTAGE 480V		
KW/CONTACTOR	24KW		KW/CONTACTOR	24KW	
CONTACTOR #	1		CONTACTOR #	3	
CONTACTOR RATING	60A		CONTACTOR RATING	60A	
FUSE BLOCK #	1		FUSE BLOCK #	3	
FUSE RATING	40A		FUSE RATING	40A	
WIRE SIZE 1	#12		WIRE SIZE 1	#12	
WIRE SIZE 2	#10		WIRE SIZE 2	#10	
CANISTER 1 KW/CANISTER 24KW			CANISTER 2 KW/CANISTER 24KW		
VOLTAGE 575V			VOLTAGE 575V		
KW/CONTACTOR	24KW		KW/CONTACTOR	24KW	
CONTACTOR #	1		CONTACTOR #	3	
CONTACTOR RATING	60A		CONTACTOR RATING	60A	
FUSE BLOCK #	1		FUSE BLOCK #	3	
FUSE RATING	30A		FUSE RATING	30A	
WIRE SIZE 1	#12		WIRE SIZE 1	#12	
WIRE SIZE 2	#10		WIRE SIZE 2	#10	

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER,TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR.BY	J.MCALLISTER	SCALE	
DATE	05APR04	SHEET 1 OF 1	

REV.	DESCRIPTION	DATE	BY

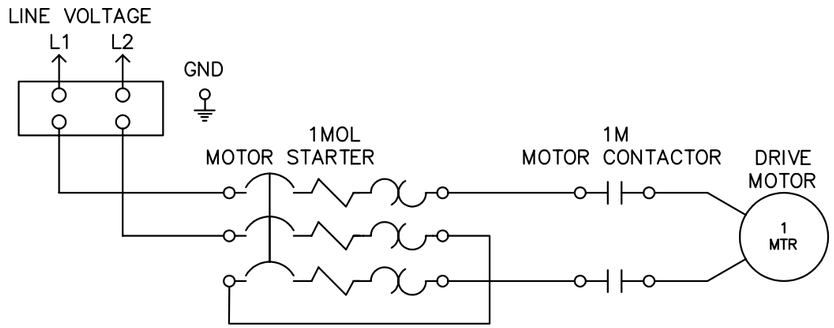
REV.	DESCRIPTION	DATE	BY

Champion
The Dishwashing Machine Specialists

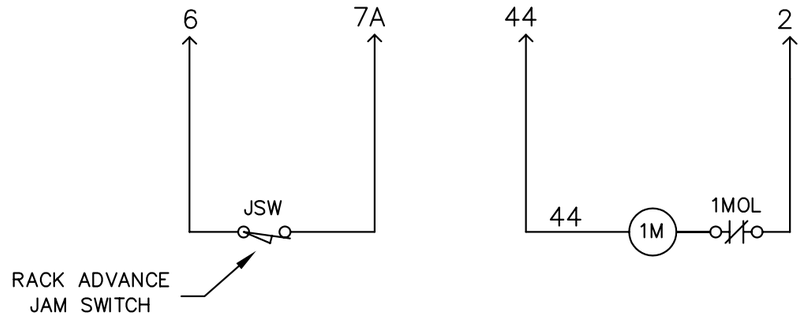
CH–48E, 48KW BOOSTER FOR RACK CONVEYOR MACHINES

B 701862 REV.

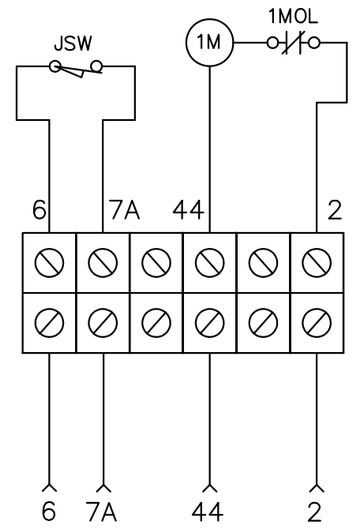
**



TO JUNCTION BOX UNDER DISH MACHINE



SCHEMATIC



WIRING DIAGRAM

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER,TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR.BY	J. MCALLISTER	SCALE	
DATE	3MAY05	SHEET 1 OF 1	

REV.	DESCRIPTION	DATE	BY
A	CHANGED CONTROL WIRING REMOVED TLS CONNECTION	25JUL06	JAM

Champion
The Dishwashing Machine Specialists

90/180 DEGREE
RACK ADVANCE E SERIES

A 701927 REV. A

**

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz AS SPECIFIED PER ORDER TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DATE	DR.BY	SCALE	SHEET
20APR09	J.MCALLISTER	NONE	1 OF 1

REV.	DESCRIPTION	DATE	BY

REV.	DESCRIPTION	DATE	BY

Champion
The Dishwashing Machine Specialists

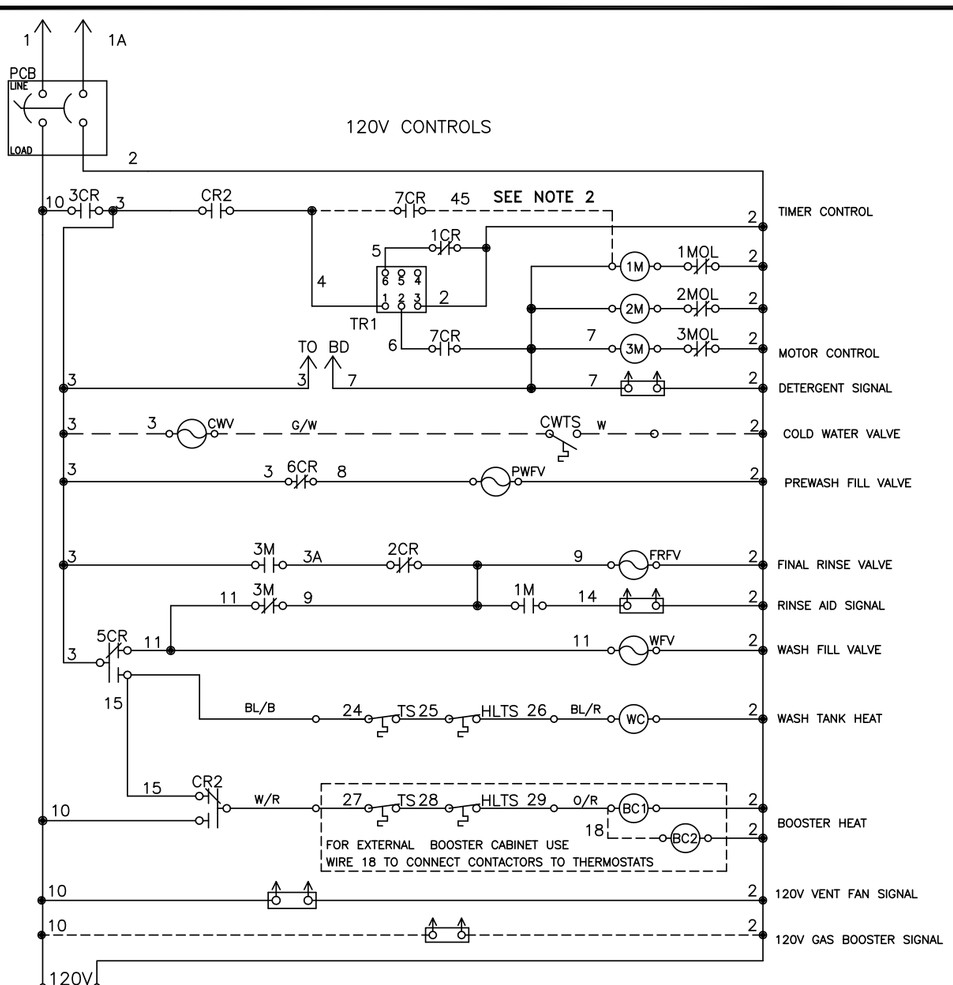
SINGLE TANK RACK W/PREWASH ELECTRIC HEAT DIGITAL DISPLAY

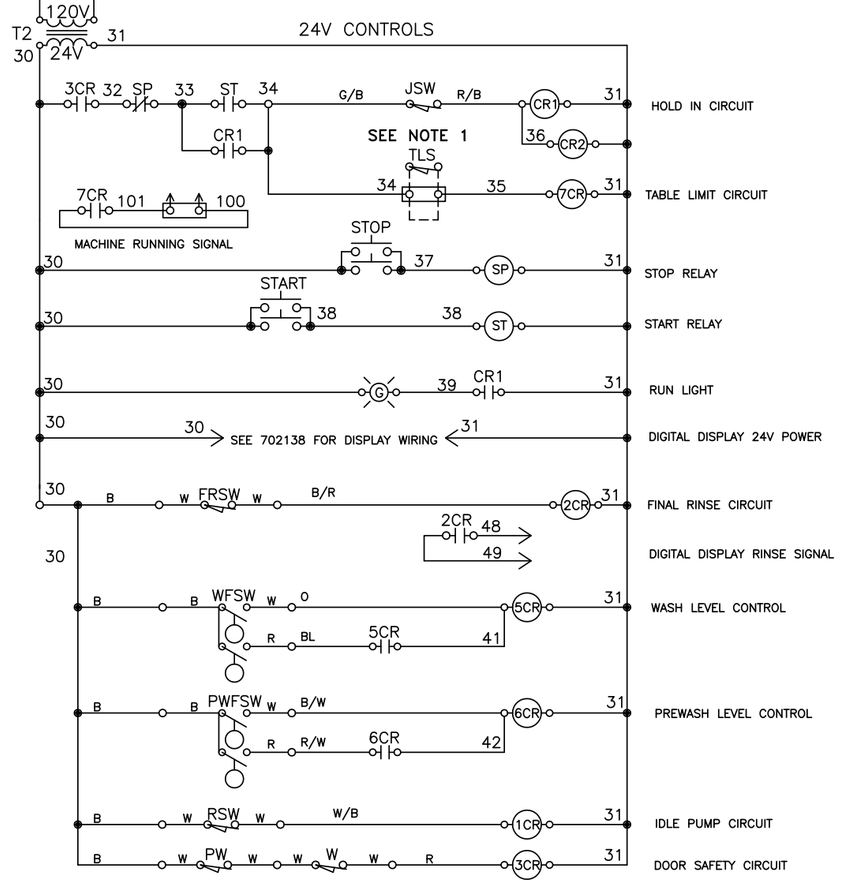
B702156-1 REV. 0

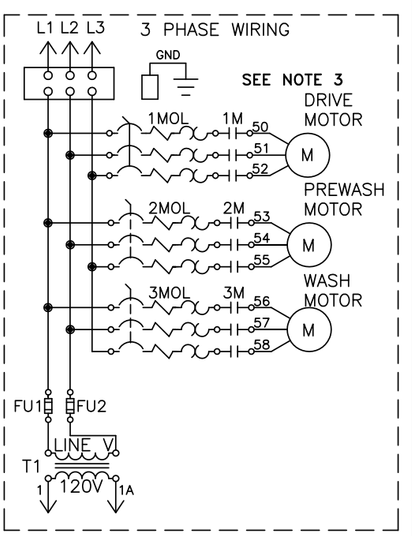
MODELS COVERED BY THIS DRAWING	
66PW	66WSPW
76PW	80HDPW

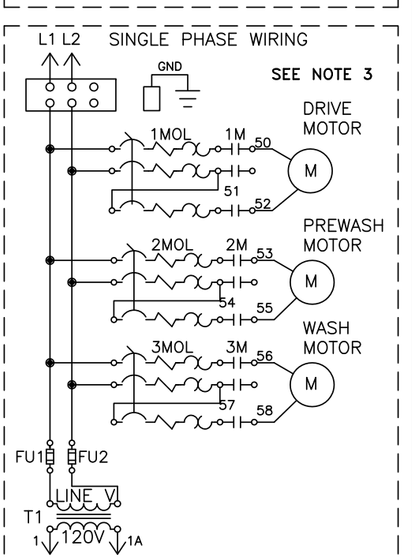
1CR	RACK SWITCH RELAY
2CR	FINAL RINSE SWITCH RELAY
3CR	DOOR SAFETY SWITCH RELAY
4CR	RINSE FILL RELAY
5CR	WASH FILL RELAY
6CR	PREWASH FILL RELAY
7CR	TABLE LIMIT SWITCH RELAY
1M	DRIVE MOTOR CONTACTOR
1MOL	DRIVE MOTOR OVERLOAD
2M	PREWASH MOTOR CONTACTOR
2MOL	PREWASH MOTOR OVERLOAD
3M	WASH MOTOR CONTACTOR
3MOL	WASH MOTOR OVERLOAD
BC–	BOOSTER CONTACTOR
BD	BLOWER DRYER
CR1/2	HOLD–IN RELAY
CWTS	COLD WATER THERMOSTAT
CWV	COLD WATER VALVE
FRFV	FINAL RINSE FILL VALVE
FRSW	FINAL RINSE SWITCH
FU	FUSE
HLTS	HIGH LIMIT THERMOSTAT
JSW	JAM SWITCH
PCB	POWER CIRCUIT BREAKER
PW	PREWASH DOOR SWITCH
PWFSW	PREWASH FLOAT SWITCH
RSW	RACK SWITCH
SP	STOP RELAY
ST	START RELAY
T1	CONTROL TRANSFORMER–120V
T2	CONTROL TRANSFORMER–24V
TLS	TABLE LIMIT SWITCH
TR1	IDLE PUMP TIMER
TS	THERMOSTAT
W	WASH DOOR SWITCH
WC	WASH HEAT CONTACTOR
WFSW	WASH TANK FLOAT SWITCH
WFV	WASH FILL VALVE

FOR TANK HEAT WIRING SEE DRAWING 113991





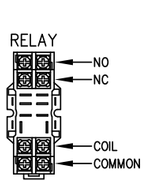




MULTICONDUCTOR COLOR CODE CHART

B–BLACK
W–WHITE
R–RED
O–ORANGE
BL–BLUE
W/B–WHITE/BLACK
R/B–RED/BLACK
G/B– GREEN/BLACK
O/B–ORANGE/BLACK
BL/B–BLUE/BLACK
B/W–BLACK/WHITE
R/W–RED/WHITE
G/W–GREEN/WHITE
BL/W–BLUE/WHITE
B/R–BLACK/RED
W/R–WHITE/RED
O/R–ORANGE/RED
BL/R–BLUE/RED
R/G–RED/GREEN
O/G–ORANGE/GREEN

DIAGRAM STATE
POWER OFF
DOORS CLOSED
TANKS EMPTY



NOTES:

1. WHEN TABLE LIMIT SWITCH IS USED REMOVE JUMPER AND CONNECT LEADS BETWEEN WIRES 34 AND 35 ON TERMINAL BLOCK IN PANEL.
2. ON MODELS WITH SIDE LOADER OPTION DRIVE MOTOR CONTACTOR 1M IS CONNECTED TO WIRE #45 INSTEAD OF WIRE #7.
3. ON MODELS WITH MULTIPLE ELECTRIC CONNECTIONS, MAKE HEATER POWER CONNECTIONS AT THE HEATER FUSE BLOCK.

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz AS SPECIFIED PER ORDER. TO DISCONNECT SWITCH, ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR.BY J.MCALLISTER | SCALE NONE | SHEET 1 OF 1 | DATE 30APR09

REV.	DESCRIPTION	DATE	BY

REV.	DESCRIPTION	DATE	BY

MODELS COVERED BY THIS DRAWING	
44	44WS
54	54WS

1CR	RACK SWITCH RELAY
2CR	FINAL RINSE SWITCH RELAY
3CR	DOOR SAFETY SWITCH RELAY
4CR	RINSE FILL RELAY
5CR	WASH FILL RELAY
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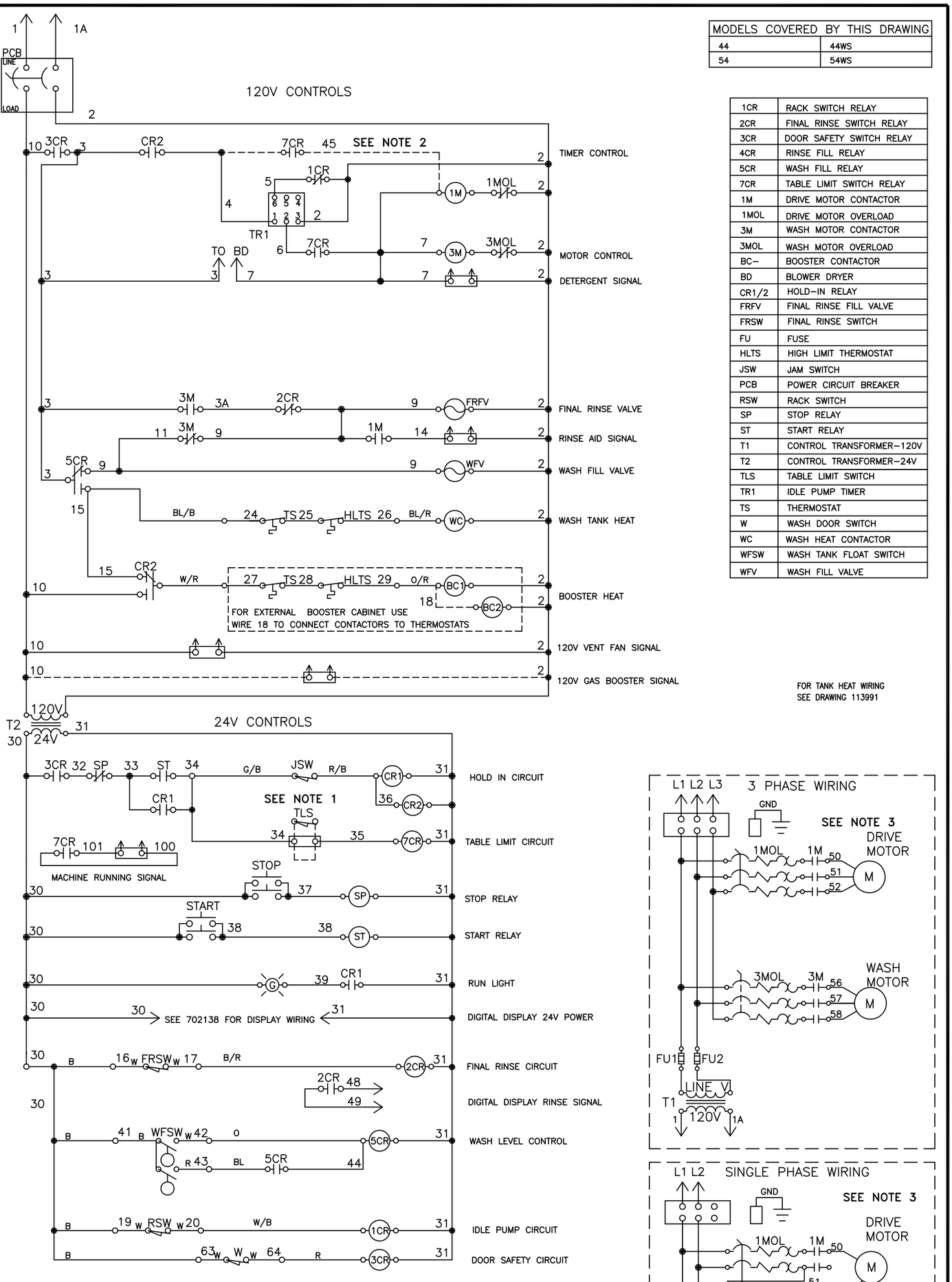
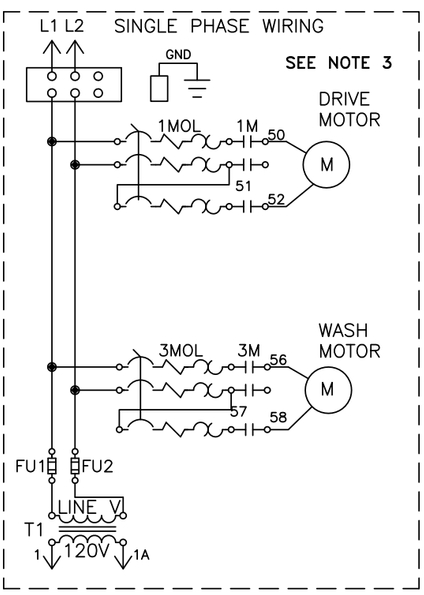
WFSW	WASH TANK FLOAT SWITCH
WFV	WASH FILL VALVE



FOR TANK HEAT WIRING SEE DRAWING 113991



MULTICONDUCTOR COLOR CODE CHART

B–BLACK	
W–WHITE	
R–RED	
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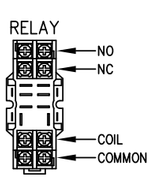
BL–BLUE	
W/B–WHITE/BLACK	
R/B–RED/BLACK	
G/B– GREEN/BLACK	
O/B–ORANGE/BLACK	
BL/B–BLUE/BLACK	
B/W–BLACK/WHITE	
R/W–RED/WHITE	
G/W–GREEN/WHITE	
BL/W–BLUE/WHITE	
B/R–BLACK/RED	
W/R–WHITE/RED	
O/R–ORANGE/RED	
BL/R–BLUE/RED	
R/G–RED/GREEN	
O/G–ORANGE/GREEN	

DIAGRAM STATE
POWER OFF
DOORS CLOSED
TANKS EMPTY



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Champion
The Dishwashing Machine Specialists

SINGLE TANK RACK
ELECTRIC HEAT DIGITAL DISPLAY

B702157–1 REV. 0